

MANUFACTURERS RECORD

A WEEKLY SOUTHERN INDUSTRIAL, RAILROAD AND FINANCIAL NEWSPAPER

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BALTIMORE, MAY 11, 1911.

ARKANSAS FOR GOOD ROADS.

The Arkansas Legislature has passed a bill for the construction of a highway from Little Rock to Pine Bluff, and at this writing the Senate has a House bill for a highway from Little Rock to Fort Smith, which Governor G. W. Donaghey hopes will pass the Senate. The *Arkansas Gazette*, which has been persistently and consistently active for good roads, looks to these bills as the beginning of a system of highways connecting county-seats of the State and centers of trade and population.

NATURAL GAS.

The value of natural gas produced in the United States in 1882 was \$215,000. By 1884 the production reached a value of \$1,460,000, and since then, with fluctuations from year to year, production has generally increased, and had a value in 1909 of \$63,206,941. West Virginia led the country in production in 1909 with 166,435,092,000 cubic feet, and the total production in the South was about 175,000,000,000 cubic feet, or 36 per cent. of the 480,706,174,000 cubic feet produced in the country. Increasing demands for this fuel for industrial and domestic purposes are indicated in the following figures for four years, 1906-1909:

| Years. | Pro- duc- tion. | Consumers. Do- mestic. tic. | Indus- trial. trial. | M cubic feet consumed. Domes- tic. Indus- trial. |
|---------|-----------------------|--------------------------------------|----------------------------|--|
| 1906... | 1871 | 874,944 | 9,074 | 110,495,808 |
| 1907... | 2407 | 1,058,181 | 13,095 | 131,377,587 |
| 1908... | 3422 | 1,166,908 | 11,965 | 140,583,732 |
| 1909... | 8119 | 1,223,438 | 17,259 | 151,222,223 |

Between 1906 and 1909 there was a steady increase in the consumption of natural gas for domestic purposes, the

total increase being from 110,405,808,000 cubic feet to 150,222,223,000 cubic feet, or by 40,816,415,000 cubic feet, equal to something more than 36 per cent. But in the industrial line, reflecting the financial troubles of the winter of 1907-1908, there was a falling off in consumption in 1907 from that of 1906 of something more than 3,000,000,000 cubic feet, and in 1908 of nearly 14,000,000,000 cubic feet more. In 1909, however, there was an increase over 1908 of nearly 67,000,000,000 cubic feet, and the total increase in the four years was from 278,436,754,000 cubic feet to 329,483,951,000 cubic feet, or by 51,047,197,000 cubic feet, equal to something more than 18 per cent. The consumption by States for three years is shown in the following table:

| States. | 1907. | 1908. | 1909. |
|-------------------|-------------|-------------|-------------|
| Pennsylvania... | 119,700,431 | 105,587,229 | 123,327,081 |
| Ohio... | 41,001,570 | 36,058,425 | 47,510,684 |
| *Kansas... | 90,273,748 | 57,000,165 | 54,024,280 |
| *West Virginia... | 44,363,520 | 43,470,547 | 63,135,580 |
| Oklahoma... | 3,552,828 | 9,362,373 | 20,830,566 |
| Illinois... | 810,040 | 3,928,627 | 7,202,439 |
| Texas... | | | |
| Louisiana... | 944,473 | 1,280,052 | 3,594,258 |
| Alabama... | | | |
| California... | 133,099 | 334,595 | 2,098,967 |
| New York... | 1,390,925 | 1,229,278 | 1,914,145 |
| Indiana... | 2,134,705 | 1,298,659 | 1,492,475 |
| Kentucky... | 274,260 | 235,401 | 2,248,539 |
| Arkansas... | | | |
| Colorado... | 581,583 | 1,056,067 | 1,490,753 |
| Wyoming... | | | |
| South Dakota... | 15,000 | 10,400 | 5,800 |
| Missouri... | 66,750 | 97,180 | 12,584 |
| North Dakota... | | 6,000 | 4,200 |
| Oregon... | | 400 | |
| Tennessee... | 1,000 | 1,000 | 1,000 |

Total..... 275,244,532 261,556,998 329,483,951
*Includes gas piped outside the State.

In 1908, the year in which the full effects of the financial disturbances were manifest, there was a falling off in consumption of natural gas in all the States except Oklahoma, Illinois, the group of Alabama, Louisiana and Texas, for which no separate figures for States are available; California, Missouri, North Dakota and Oregon, and the group of Arkansas, Colorado and Wyoming. Oklahoma has shown a steady increase in consumption since the drilling of the Caney well in 1906 to the depth of 1500 feet. The increase from 1907 to 1908 was from 3,552,828,000 cubic feet to 9,362,373,000 cubic feet, or by 5,809,545,000 cubic feet, equal to 163 per cent. Between 1908 and 1909 the increase in that State to 20,830,566,000 cubic feet was greater than the increase in any other State, and all the States showed an increase except Kansas, South Dakota, Missouri, North Dakota, Oregon and Tennessee. Steady developments of natural gas are under way in most of the producing States, and such States as West Virginia and Louisiana in the South are becoming sources of natural gas for domestic or industrial purposes in nearby States, such as Maryland, Pennsylvania, Ohio and Kentucky, in the one case, and Arkansas and Texas in the other. With improving conditions in trade, greater activity in drilling operations and the completion of pipe-line systems, the United States Geological Survey, for which B. Hill has compiled the figures used here, looks for an increasing output.

CAPITALIZATION OF SOUTHERN RAILROADS INADEQUATE TO THE NEEDS OF THE TIMES.

If \$1,000,000,000 should be expended upon the betterment of the existing 50,000 miles of railroads in the Southern States south of the Potomac and Ohio and east of the Mississippi rivers, the average amount of stocks and bonds per mile in this section would then be, in round figures, \$67,000, as compared with \$95,747 as the average capitalization per mile of the railroads of the balance of the United States.

It is true that density of population and of traffic do not yet justify an expenditure upon railroad building in the South to such an extent of capitalization per mile as in the New England and the Middle States. In the former the average capitalization per mile is \$85,854; in the Middle States it is \$154,352 per mile; in the Northwestern States, \$74,670 per mile; in the Central West, \$59,908 per mile, and in the Pacific Coast States, \$103,955 per mile. On the other hand, in the South the average capitalization, bonds and stocks included, of all the railroads in the Gulf and Mississippi Valley States east of the Mississippi River is \$39,445 per mile, and in the South Atlantic States \$54,453, or an average for the South between the Potomac, the Ohio and the Mississippi rivers of \$46,949 per mile, putting this section \$13,000 per mile below the lowest average in any other part of the United States, that being the Central West, with \$59,908.

As material development in the South more than keeps pace with railroad expansion and the betterment of existing lines, as this section is almost limitlessly rich in possibilities for the development of railroads and railroad traffic, it behooves the people of the South and the owners of Southern railroads to recognize this situation. If upon the entire 50,000 miles of railroad in that section \$10,000 per mile could be immediately expended in the betterment of railroad facilities without adding a single mile of new line, the average capitalization would then be only \$57,000 per mile, or nearly \$3000 per mile less than the average of the Central West. If upon the same 50,000 miles of road \$20,000 per mile were expended, the average capitalization would be about \$8000 per mile less than the capitalization of Northwestern railroads and \$36,000 less than the capitalization of the Pacific Coast railroads.

Elsewhere in this issue John F. Wallace, the distinguished engineer, who was for many years the chief engineer and general manager of the Illinois Central Railroad, writing about the railroad situation in the Central South, says that within the next 10 years \$1,000,000,000 must be expended in the betterment of the railroads in that section through the improvement of existing lines and the building of new mileage. Mr. Wallace, with the conservatism for which he is well known, puts the requirement at the minimum. The expenditure of the billion dollars estimated as necessary by him, if only expended upon the betterment of existing roads, without the addition of new mileage, would, as just shown, bring the average capitalization of Southern railroads up to \$67,000 16 years hence, a figure far exceeded by the capitalization of the railroads of every other section of the country except in the Central West; and, of course, within the next 10 years the Central West will have expended enough money upon the betterment of its railroads to have carried its capitalization far beyond the present figures.

The excess of capitalization in other sections as compared with the South, not including Arkansas and Texas, is as follows:

| Sections. | Excess of capitalization per mile over capitalization per mile in the South. |
|--|--|
| New England States..... | \$38,905 |
| Middle States..... | 107,403 |
| Central Western States..... | 12,959 |
| Northwestern States..... | 27,721 |
| Pacific Coast States..... | 57,206 |
| Average excess per mile over Southern average..... | \$48,739 |

It is universally admitted that a vast sum, estimated by different authorities at from \$5,000,000,000 to \$10,000,000,000, should be expended upon the railroads of the country to bring them up to the highest state of efficiency and to prepare them for taking care of increasing traffic to the advantage of the railroads as well as of benefit to the public. Without so vast an expenditure the highest railroad authorities in the country admit that there will be a deterioration in railroads as compared with the needs of the day, and their ability to take care of traffic, both passenger and freight.

If this condition exists, as everyone realizes that it does, in the entire country, how much greater, considering the statistics of capitalization which we have given, is the need for betterment of the railroads of the South. It is not as though this money should be expended without producing enlarged traffic, for there is no section of America in which railroad business, through increased earnings and decreased cost, more quickly responds to the investment of new capital in adding to the efficiency of the road for handling business at a lower cost than in the South.

If, therefore, \$1,000,000,000 ought to be expended within 10 years in the betterment of existing railroads, certainly as much more should be expended in the building of new lines to open up vast undeveloped sections needing railroad facilities.

But where shall such sums be obtained? The South certainly cannot provide

the money for this much-needed work. It has comparatively little surplus capital for railroad building. Unless this money, so much needed to bring about the best development of the South, can be drawn from other sections of the United States and from abroad, this railroad work cannot be carried out except to a very limited extent. It is not the railroads that will suffer so much as the people. Existing railroads can with existing facilities take care of existing business with a gradually increasing margin of profit, but the limitless potentialities for new business through the development of the country cannot be utilized. The people of the South themselves are, therefore, more deeply concerned in this matter even than are the railroads. Every business man looking to the enlargement of his trade, whether he be merchant or manufacturer; every property-owner desiring to see increased business prosperity through the incoming of new people and the expansion of activity in every line of industry; every mechanic, every day laborer, every professional man and every parent hoping to see a broader field in his own section for the rising generation, is vitally interested in helping the railroads to find these vast sums of new money so much needed if the progress of the South is not to be halted.

Despite the exceedingly small capitalization of Southern railroads as compared with the railroads of other sections, much less, for instance, than one-half of the capitalization of Pacific Coast railroads, there swept over the South a few years ago a wild agitation against railroads. It was claimed that they were overcapitalized and that they were destroying the prosperity of the South. Politicians vied with each other in seeking to arouse a spirit of hostility to the railroads at a time when the railroads were the greatest sufferers. It is true the railroads by their action years ago had given some justification for this antagonism, but at the time when the antagonism existed the railroads were doing all in their power to overcome the sins of their predecessors of former years.

As shown by the figures presented, the South needs money expended upon railroads to a much greater extent than any other section. The capitalization of Southern railroads is far less than the average capitalization of other sections. Until there has been expended upon Southern railroads an amount of money somewhat commensurate with that expended upon railroads of other sections, bearing in mind the difference in the density of population and traffic, but at the same time remembering the possibilities of the future, the railroads of this section cannot fairly measure up to the needs of the South, nor can they do for this section what should be done for its broadest development.

Considering the southward trend of population and money, the culmination, or the fruition rather, of the work of the last quarter of a century in Southern development; the great increase in the industrial and agricultural interests of this section, the influence which the construction of the Panama Canal will have upon every line of Southern business activity, the time has surely come when the railroads and the people of the South should fully understand the situation and through co-operation prepare for the growth that is ahead of us.

In the Central Western States of Ohio, Indiana, Illinois, Michigan and Wisconsin there are 45,365 miles of railroad in a territory of 244,550 square miles. In the far richer territory, measured by natural advantages, of Virginia, West Virginia, North and South Carolina, Georgia and Florida, with 256,740 square miles of territory, there are only 27,409 miles of railroads. In this marvelously endowed region, with its vast mineral wealth, its agricultural and climatic advantages, with an area of 12,000 square miles greater than that of the Central West, the railroad mileage is only 60 per cent. as great.

In the Central South, the Gulf and Mississippi Valley group of States, consisting of Alabama, Mississippi, Louisiana, Tennessee and Kentucky, a region than which there is no richer in possibilities in the world, with an area of 225,050 square miles, there are only 22,430 miles of railroad, or less than one-half as much as in the Central West, although the area is nearly as great. In this group there are resources in the way of minerals, timbers, water-powers, agricultural capabilities and climatic advantages for the creation of business and the support of population far superior to those of the Central West. And yet the section mentioned has only 22,430 miles of railroad compared with 45,365 miles in the Central Western States.

It is true that the population in the Central West is much more dense than it is in the South, but it would not have been so had there been an inadequate railroad development. The growth of population in the South must to a large extent depend upon the advance of railroad facilities and the work which railroads, prospering as they should do, will be able to accomplish in bringing men and money South, as Western roads carried men and money to the West. The time is opportune for a closer study than has ever been given to all of these great problems by the people of the South, who must give to railroad investments all possible encouragement, and by the people who control Southern railroads that the managers of these roads may be as well equipped with facilities for doing business as are the managers of the railroads of other sections. It is not possible for the operating officers of Southern railroads to accomplish with inadequate tools as much in the management of railroads for the security-holders and for the South as it is possible for the managers of the railroads in other sections, equipped with the very best tools of business, to do for their security-holders and the countries through which these roads operate.

LEGISLATION AGAINST CORPORATIONS.

Mr. C. O. Bartlett, president of The C. O. Bartlett & Snow Company, engineers and manufacturers of machinery of Cleveland, Ohio, writing under date of April 27, says:

We wish to thank you for your editorial on page 44 of the April 27 issue of the MANUFACTURERS RECORD.

I fully believe that President James McCrea of the Pennsylvania Railroad spoke the true sentiments of very many business corporations throughout the United States, and

If this legislation against corporations does not cease in the near future we will have the worst time ever experienced in the United States. I sincerely hope, however, as you say, that the people of the United States are changing their tune and that this unjust and unfair legislation against corporations will cease. I fully believe that the majority of the people do not want to legislate against business. There isn't a town in any State in the Union but what would be glad to have a manufacturing company of almost any kind, and a very large majority of the people are in favor of the manufacturers, but have allowed themselves to be gulled by those goody-goody agitators.

COMMUNITY PARALYSIS IN REAL ESTATE INFLATION.

Throughout the South there is a growing tendency among business people and men of means generally to concentrate all their energies and surplus capital into real estate operations to the neglect of the development of industrial enterprises upon which the growth of a section or a city, and the intrinsic value of its real estate, must depend. There is very great danger, looking to the best interests of the South in the long run, that this concentration of capital and energy upon real estate, both in farm lands and town lots, will lessen the energy with which the South ought to give itself to industrial development and absorb a very large amount of capital which ought to be invested in creative enterprises rather than in mere trading.

In nearly all of the growing cities of the South the cost of residences is entirely too high for men of moderate salaries. In most of these Southern cities there has been no organized effort at house-building on a large scale as in Baltimore and cities to the north, where house-building as an investment is one of the most active interests, thus providing houses of moderate cost for all classes of people, the day laborer, the mechanic and the clerk, as well as for men of larger means. The scarcity of moderate-cost dwellings with all modern improvements, such as can be had in the North either for rent or purchase, is a serious drawback in many of the most prosperous cities in the South. Their advancement will be halted to some extent unless it is made possible for men of moderate incomes, whether mechanics or clerks, to live in comfort and yet secure inexpensive homes. In this direction there is a great field for creative work on the part of men interested in the upbuilding of their communities, to the good of all classes, as well as to a fair profit to the investor.

An important suggestion, to the effect that real estate inflation may divert intending investors in industries from otherwise promising opportunities in Southern cities, is made in a letter to the MANUFACTURERS RECORD by Mr. William F. Robertson of Charlotte, N. C., who writes:

Here is a problem which I would like for you to consider—a most important and serious one to any developing section: How far can the building of real estate in our Southern cities go before it becomes an obstacle to growth?

It is natural in rapidly developing and prosperity increasing cities for the value of real estate to increase. Soon the real estate fever asserts itself. The manufacturer comes and finds that a site will cost him out of all reason; homes for himself and those associated with him are almost prohibited; land is held in idleness awaiting the consummation of selfish dreams. The way of progress becomes blocked.

What is the sane balance, and how can it be found and maintained?

I know of a city not a thousand miles from Atlanta suffering terribly from such a malady. The real estate situation has almost scotched the wheels. With its natural equipment it should surpass the city named. Yet it has not 50,000 population, while Atlanta, with its well-balanced management, has more than 150,000.

Conditions vary so greatly among different communities that it is impossible to lay down any set of detailed rules, applicable to all cities, whereby a sane balance can be found and maintained. The question of real estate values is, of course, one that the desirable investor in manufacturing must consider in determining whether or not to select any particular city as his home. Real estate is an important feature of his invest-

ment, and, to be acceptable to him, must not absorb too great a part of the capital that he wishes to invest or cost him so much that the returns will not justify investment. Moreover, real estate values must be considered by him in their relation to the cost of living for employees of an industry as affecting house rents, and, consequently, having something to do with the question of wages to be paid.

Holders of real estate who expect to receive for their land a price equal to the value added to the land by the establishment of an important industry, and who hold the land at that price, are blocks in the way of a community's progress and are standing in their own light. Because real estate values have been enhanced in one community by the legitimate demands upon land there for industries and the natural increase of business activities more or less dependent upon the success of the industries, is the poorest sort of reason for land-owners in another community to demand or expect equally high prices for their land when similar industries look to it for sites. Acting upon such a theory is like counting one's chickens before they are hatched or cutting a melon before it is ripe. It is worse than foolhardy. It gives a community a black eye with investors and outweighs in their practical estimation all natural advantages with which the community may be blessed.

These suggestions should be borne in mind by the men of all Southern communities seeking to attract industries, and, having them in mind, they ought to be able to develop a public spirit through a real business organization that will check the rather natural ambition of individuals to make too much hay while the sun is shining, an ambition that is likely to result in sunstroke for the individuals and paralysis for the community.

A CRITICISM ANSWERED.

Referring to an utterance of the MANUFACTURERS RECORD in opposition to the so-called "farmers' free list" in contemplated tariff revision, the Macon (Ga.) News says:

The MANUFACTURERS RECORD, published in Baltimore, has done much good work in advertising the South, its resources and its industries, but when it comes to discussing the protective tariff, it is what its name implies, and it can see the subject only from the point of view of the interests it represents.

The interests which the MANUFACTURERS RECORD represents are suggested by the Sheffield (Ala.) Standard when it says, referring to the same subject:

The South has no truer friend than Richard H. Edmonds, editor of the MANUFACTURERS RECORD. Mr. Edmonds says: "It is a mistaken policy, advocated by many Southern people, of putting on the free list the things produced by the South." Mr. Edmonds is sustained in this view by leading business men throughout the South—men who have no political axes to grind, but who are laboring solely for the promotion of Southern industrial development.

It is called the MANUFACTURERS RECORD because, while giving full attention to all matters affecting the South, it has labored for nearly thirty years in the cause of Southern advancement on all lines in deep conviction that manufacturers are the fundamental agencies upon which depend the full development of all the interests of the South, agricultural, mineral, transportation, commercial and business, and not only such material interests, but also the higher interests with which a people must be deeply concerned if their ma-

terial welfare is not to be enjoyed at the sacrifice of things that make life really worth living. In all that it says the MANUFACTURERS RECORD tries to view the subject from the point of view of the interests it represents, and those interests are the interests of the people of the South—the farmers just as much as the manufacturers, for neither can prosper unless both prosper.

MEMPHIS AS A HARDWOOD CENTER.

Members of the National Hardwood Lumber Association will feel very much at home in their convention at Memphis, Tenn., this week. They will be the guests of a center of the hardwood industry and in the midst of many activities turning upon the handling of that lumber in many forms. Of the 44,509,761,000 feet of lumber, valued at \$684,497,859, cut in this country in 1909, nearly 24 per cent., or 10,612,802,000 feet, valued at \$207,134,813, was hardwood. Of the total cut of hardwood, 6,113,838,000, or 57.6 per cent., valued at \$118,877,766, were cut in the 14 Southern States and Missouri. In Tennessee and in the four States, Kentucky, Missouri, Arkansas and Mississippi, abutting upon it in the Memphis territory, 3,437,914,000 feet of hardwood were cut. That cut was 56 per cent. of the hardwood cut in the South and Missouri and 32.4 per cent. of the cut of hardwood in the United States. The cuts in the five States were as follows:

| | Feet. | Value. |
|------------------|---------------|--------------|
| Arkansas..... | 742,113,000 | \$13,641,526 |
| Kentucky..... | 731,823,000 | 17,442,546 |
| Tennessee..... | 1,015,723,000 | 24,400,191 |
| Mississippi..... | 416,242,000 | 9,144,421 |
| Missouri..... | 482,013,000 | 7,798,298 |
| Total..... | 3,437,914,000 | \$72,427,282 |

The cuts and values by wood in these five States were as follows:

| Woods. | Feet. | Value. |
|--------------------|---------------|--------------|
| Oak..... | 1,750,864,000 | \$37,704,540 |
| Red gum..... | 523,226,000 | 6,896,772 |
| Yellow poplar..... | 346,742,000 | 9,280,699 |
| Hickory..... | 200,492,000 | 6,556,381 |
| Cottonwood..... | 132,633,000 | 2,580,959 |
| Chestnut..... | 109,302,000 | 1,710,597 |
| Ash..... | 94,581,000 | 2,447,242 |
| Elm..... | 67,877,000 | 985,860 |
| Beech..... | 56,377,000 | 683,257 |
| Maple..... | 47,325,000 | 681,102 |
| Sycamore..... | 26,583,000 | 359,255 |
| Basswood..... | 23,805,000 | 445,363 |
| Tupelo..... | 20,068,000 | 258,946 |
| Walnut..... | 13,866,000 | 535,794 |
| Birch..... | 3,652,000 | 57,112 |
| Cherry..... | 2,379,000 | 75,500 |
| All other..... | 18,142,000 | 1,157,993 |
| Total..... | 3,437,914,000 | \$72,427,282 |

Details of the cuts by woods and values in the separate States appear in the following table:

| Oak. | Feet. | Value. |
|------------------|---------------|--------------|
| Arkansas..... | 358,556,000 | \$7,099,409 |
| Kentucky..... | 405,677,000 | 8,297,514 |
| Tennessee..... | 546,590,000 | 13,558,290 |
| Mississippi..... | 168,568,000 | 4,331,180 |
| Missouri..... | 271,623,000 | 4,123,237 |
| Total..... | 1,750,864,000 | \$37,704,540 |

| Maple. | Feet. | Value. |
|------------------|------------|-----------|
| Arkansas..... | 18,500,000 | \$260,480 |
| Kentucky..... | 9,069,000 | 126,422 |
| Tennessee..... | 8,610,000 | 135,349 |
| Mississippi..... | 770,000 | 9,748 |
| Missouri..... | 10,376,000 | 149,103 |
| Total..... | 47,325,000 | \$681,102 |

| Yellow Poplar. | Feet. | Value. |
|------------------|-------------|-------------|
| Arkansas..... | 4,484,000 | \$95,420 |
| Kentucky..... | 149,808,000 | 4,175,119 |
| Tennessee..... | 164,826,000 | 4,367,889 |
| Mississippi..... | 25,833,000 | 697,334 |
| Missouri..... | 1,791,000 | 34,907 |
| Total..... | 346,742,000 | \$9,280,699 |

| Red Gum. | Feet. | Value. |
|------------------|-------------|-------------|
| Arkansas..... | 200,953,000 | \$2,529,988 |
| Kentucky..... | 42,072,000 | 532,211 |
| Tennessee..... | 75,565,000 | 1,194,683 |
| Mississippi..... | 120,731,000 | 1,634,698 |
| Missouri..... | 83,905,000 | 1,005,182 |
| Total..... | 523,226,000 | \$6,896,772 |

| Chestnut. | Feet. | Value. |
|------------------|-------------|-------------|
| Arkansas..... | 35,648,000 | \$565,021 |
| Kentucky..... | 71,962,000 | 1,121,888 |
| Tennessee..... | 1,682,000 | 23,688 |
| Mississippi..... | | |
| Missouri..... | | |
| Total..... | 109,302,000 | \$1,710,597 |

| Beech. | Feet. | Value. |
|------------------|------------|-----------|
| Arkansas..... | 78,000 | \$1,008 |
| Kentucky..... | 36,953,000 | 451,196 |
| Tennessee..... | 18,341,000 | 201,751 |
| Mississippi..... | 680,000 | 6,052 |
| Missouri..... | 325,000 | 3,250 |
| Total..... | 56,377,000 | \$683,257 |

| Birch. | Feet. | Value. |
|------------------|-----------|----------|
| Arkansas..... | 138,000 | \$2,398 |
| Kentucky..... | 1,040,000 | 13,957 |
| Tennessee..... | 1,274,000 | 21,620 |
| Mississippi..... | 85,000 | 1,442 |
| Missouri..... | 1,115,000 | 17,885 |
| Total..... | 3,652,000 | \$57,112 |

| Basswood. | Feet. | Value. |
|------------------|------------|-----------|
| Arkansas..... | 605,000 | \$13,274 |
| Kentucky..... | 10,056,000 | 182,114 |
| Tennessee..... | 11,463,000 | 221,907 |
| Mississippi..... | 591,000 | 10,963 |
| Missouri..... | 1,090,000 | 18,105 |
| Total..... | 23,805,000 | \$445,363 |

| Elm. | Feet. | Value. |
|------------------|------------|-----------|
| Arkansas..... | 13,656,000 | \$194,736 |
| Kentucky..... | 10,130,000 | 131,082 |
| Tennessee..... | 10,688,000 | 144,646 |
| Mississippi..... | 6,090,000 | 91,654 |
| Missouri..... | 27,913,000 | 423,719 |
| Total..... | 67,877,000 | \$985,860 |

| Cottonwood. | Feet. | Value. |
|------------------|-------------|-------------|
| Arkansas..... | 54,507,000 | \$1,035,083 |
| Kentucky..... | 1,537,000 | 25,530 |
| Tennessee..... | 12,380,000 | 273,227 |
| Mississippi..... | 46,222,000 | 920,280 |
| Missouri..... | 17,967,000 | 326,834 |
| Total..... | 132,633,000 | \$2,580,959 |

| Ash. | Feet. | Value. |
|------------------|------------|-------------|
| Arkansas..... | 33,212,000 | \$808,712 |
| Kentucky..... | 14,958,000 | 326,832 |
| Tennessee..... | 18,708,000 | 577,734 |
| Mississippi..... | 15,017,000 | 437,896 |
| Missouri..... | 12,685,000 | 296,068 |
| Total..... | 94,581,000 | \$2,447,242 |

| Hickory. | Feet. | Value. |
|------------------|-------------|-------------|
| Arkansas..... | 45,133,000 | \$1,292,353 |
| Kentucky..... | 41,656,000 | 1,259,677 |
| Tennessee..... | 58,477,000 | 2,171,351 |
| Mississippi..... | 21,967,000 | 736,993 |
| Missouri..... | 33,259,000 | 996,107 |
| Total..... | 200,492,000 | \$6,556,381 |

| Tupelo. | Feet. | Value. |
|------------------|------------|-----------|
| Arkansas..... | 6,084,000 | \$83,533 |
| Kentucky..... | 207,000 | 2,300 |
| Tennessee..... | 3,180,000 | 35,370 |
| Mississippi..... | 6,146,000 | 83,770 |
| Missouri..... | 4,361,000 | 52,473 |
| Total..... | 20,068,000 | \$258,946 |

| Walnut. | Feet. | Value. |
|------------------|------------|-----------|
| Arkansas..... | 544,000 | \$22,658 |
| Kentucky..... | 4,907,000 | 176,358 |
| Tennessee..... | 4,068,000 | 162,021 |
| Mississippi..... | 33,000 | 1,887 |
| Missouri..... | 4,314,000 | 182,870 |
| Total..... | 13,866,000 | \$535,794 |

| Sycamore. | Feet. | Value. |
|------------------|------------|-----------|
| Arkansas..... | 5,406,000 | \$82,550 |
| Kentucky..... | 6,760,000 | 87,001 |
| Tennessee..... | 3,512,000 | 46,183 |
| Mississippi..... | 379,000 | 5,439 |
| Missouri..... | 10,526,000 | 138,101 |
| Total..... | 26,583,000 | \$359,255 |

| Cherry. | Feet. | Value. |
|------------------|-----------|----------|
| Arkansas..... | 332,000 | \$6,072 |
| Kentucky..... | 792,000 | 32,749 |
| Tennessee..... | 874,000 | 27,793 |
| Mississippi..... | 5,000 | 200 |
| Missouri..... | 376,000 | 5,986 |
| Total..... | 2,379,000 | \$75,500 |

| All Other. | Feet. | Value. |
|------------------|------------|-------------|
| Arkansas..... | 625,000 | \$14,267 |
| Kentucky..... | 10,453,000 | 966,433 |
| Tennessee..... | 5,294,000 | 154,116 |
| Mississippi..... | 1,483,000 | 41,316 |
| Missouri..... | 377,000 | 21,471 |
| Total..... | 18,142,000 | \$1,157,993 |

Of the five States Tennessee led the country in the cut of oak, 546,590,000 feet; yellow poplar, 164,826,000 feet, and hickory, 58,477,000 feet. Arkansas led the country in the cut of red gum, 200,953,000 feet; cottonwood, 54,507,000 feet, and ash, 33,212,000 feet. In oak Kentucky ranked third in the country, 405,677,000 feet, and Arkansas fifth, 358,556,000 feet. Kentucky ranked third in yellow poplar, 149,808,000 feet, and Mississippi second in red gum, 120,731,000 feet, and third in cottonwood, 46,222,000 feet. Following Tennessee in the cut of hickory, Arkansas ranked second, 45,133,000 feet; Kentucky third, 41,656,000 feet, and Missouri fourth, 33,259,000 feet.

The five States centering about Memphis cut 1,750,864,000 feet, or 39.6 per cent. of the total cut of oak in the country; 523,226,000 feet, or 74 per cent. of red gum; 346,742,000 feet, or 40.2 per cent. of yellow poplar; 200,492,000, or 60 per cent. of the hickory; 132,633,000 feet, or 49.9 per cent. of the cottonwood; 109,302,000 feet, or 16.4 per cent. of the chestnut; 94,581,000 feet, or 32.4 per cent. of the ash; 67,877,000 feet, or 19.5 per cent. of the elm; 56,377,000 feet, or 11 per cent. of the beech; 47,325,000 feet, or 4.2 per cent. of the maple; 26,583,000 feet, or 46.9 per cent. of the sycamore; 23,805,000 feet, or 7 per cent. of the basswood; 20,068,000 feet, or 20.7 per cent. of the tupelo; 13,866,000 feet, or 29.9 per cent. of the walnut; 3,652,000 feet, or eight-tenths of 1 per cent. of the birch; 2,379,000 feet, or 8.9 per cent. of the cherry, and 18,142,000 feet, or 48.3 per cent. of all other woods.

As a matter of fact, the Southern Appalachian region is the great source of hardwood supply in this country, and upon that supply depend such great industries as hardwood lumber manufacturing for divers lines of construction work, furniture-making, cooperage, vehicle manufacture, car building, railroad ties, agricultural implements, transmission poles, etc. So admirably situated as to the sources of supply, not only in the Appalachians, but also in the States immediately west of the Mississippi, and as to facilities for distribution, as is Memphis, it is not surprising that that city is handling annually more than half a billion feet of hardwood, valued at nearly \$14,000,000, and that nearly 79,000,000 feet of hardwood is used annually by woodworking plants of various kinds.

SETTLING CUT-OVER LANDS.

Correspondence in this issue from Hattiesburg, Miss., gives some interesting facts regarding efforts now being made to secure colonists for the occupancy of the cut-over pine lands of the South, and notably of Mississippi, which have now assumed the proportions of a "movement."

While there are difficulties to be overcome in bringing about the occupancy and cultivation of these generally vacant lands, and it will require the hardest kind of work to fill up the three million acres of Mississippi's cut-over lands and the millions of acres in other Southern States, the undertaking is not nearly so formidable as was the settlement of the heavily timbered States in the Middle West, and with the land hunger which abounds throughout the country it should be possible, through energy and persistence, to bring a great many thousand of desirable immigrants into these portions of the South within the present decade.

On these lands, which are selling at a cheaper price than any arable lands in the United States, it is possible to raise the widest variety of staple crops, as well as truck, fruit, nuts, and in some localities even oranges. The industrious and intelligent farmer is certain of a good living, whether he engage in stock-raising, general agriculture or horticulture, and by utilizing all the opportunities at hand he may aspire to affluence within a very few years. There are frequent instances where a man receives enough from his first year's crop to pay for his land, and when seasonal and market conditions are auspicious, hundreds of dollars per acre may be earned from truck grown in successive crops.

What these cut-over lands may do

almost anywhere throughout the extensive pine belt of the South is demonstrated in the development brought about in Tangipahoa parish, La., by Capt. J. F. Merry, for so many years the eminent immigration commissioner of the Illinois Central Railroad. When he began to encourage berry-growing, truck farming and dairying at Hammond, some 26 years ago, there was not a carload of produce shipped from the entire parish. This year the strawberry shipments alone aggregate \$3,000,000, and there are also extensive shipments of produce and a great dairy industry has been developed.

There is room for 75,000 families on the cut-over lands of Mississippi alone, and opportunities of an equal magnitude are to be found in the pine belts of Louisiana and Texas. The wealth which the settlement of these lands would bring to the South, in the way of primary investment and yearly revenue thereafter, is staggering in its stupendous aggregate. Manifestly this is a work that may well engage the attention and the energies of broad-gauged men in large numbers in every locality affected. It will not be the work of a day or a year, and even with co-operation and the marshaling of forces all along the line a quarter of a century need hardly be regarded as too long a time to see a full fruition of the hopes of the colonization agent. But the reward to the community and the individual will be great, and it is a work worthy of widespread, persistent and energetic effort.

This is a work which has long been commended by the MANUFACTURERS RECORD as of self-evident and commanding importance to the progress and well-being of the South. It is gratifying to note the universal interest the movement is beginning to attract. For a long time the owners of timber lands, especially those who were conducting timber operations, were so indifferent to the fate or value of the lands that they frequently allowed them to revert to the State for taxes after the timber was cut off. A very different condition exists today, and in many cases the owners themselves are active in efforts to colonize their tracts. Their value has been established, and they are being held at a stiff price, compared with prices prevailing a short time ago.

The general growing scarcity of cheap lands is doubtless responsible to a large extent for the change in public estimation of these lands, although the work of the newspapers has doubtless had a considerable influence in attracting attention to the opportunities here. It is many years since the MANUFACTURERS RECORD first called attention to the possibilities for development in this line, and in recent years the matter has been agitated by various newspapers and other publications, a notable instance being the campaign carried on during the past year by the *Lumber Trade Journal* of New Orleans.

FACTORIES IN GEORGIA CITIES.

Increase in factory interests in several cities of Georgia in the five years, 1904-1909, were, according to the Census Bureau, as follows:

Atlanta—Capital invested, from \$21,631,000 to \$30,878,000, or 43 per cent.; value of products, from \$25,746,000 to \$33,038,000, or 28 per cent.; salaried officials and clerks, from 1203 to 2422, or 86 per cent., and average number of wage-earners, from 11,801 to 12,302, or 3 per cent.

Augusta—Capital, from \$8,101,000 to

\$11,066,000, or 37 per cent.; value of products, from \$8,829,000 to \$10,456,000, or 18 per cent.; officials and clerks, from 291 to 324, or 11 per cent., and wage-earners, from 4839 to 5073, or 5 per cent.

Macon—Capital, from \$6,750,000 to \$8,476,000, or 26 per cent.; value of products, from \$7,297,000 to \$10,703,000, or 47 per cent.; officials and clerks, from 298 to 370, or 24 per cent., and wage-earners, from 3661 to 3729, or 2 per cent.

Columbus—Capital, from \$5,874,000 to \$7,997,000, or 36 per cent.; value of products, from \$7,080,000 to \$8,552,000, or 21 per cent.; officials and clerks, from 243 to 257, or 6 per cent., and wage-earners, from 4434 to 4661, or 5 per cent.

Athens—Capital, from \$946,000 to \$1,921,000, or 102 per cent.; value of products, from \$1,158,000 to \$2,112,000, or 82 per cent.; officials and clerks, from 58 to 101, or 74 per cent., and wage-earners, from 509 to 962, or 89 per cent.

Brunswick—Capital, from \$287,000 to \$452,000, or 57 per cent.; value of products, from \$470,000 to \$672,000, or 65 per cent.; officials and clerks, from 25 to 54, or 116 per cent., and wage-earners, from 254 to 385, or 52 per cent.

The capital invested at Waycross in 1909 was \$868,000, the value of the products \$1,203,000, officials and clerks numbered 76 and wage-earners 1130.

FLORIDA AGRICULTURE.

Commissioner of Agriculture B. E. McLin of Florida, in his biennial report for 1909 and 1910, shows that the total area in cultivation in 1909-10 was 1,157,546 acres, a gain of 29,848 acres over 1907-08. To field crops 1,103,499 acres were devoted and to vegetable and garden products 54,047 acres. The yields were, field crops, \$14,612,840; vegetable and garden products, \$6,825,912; fruit products, \$5,905,727; live-stock, \$23,967,501; poultry products, \$2,413,940; dairy products, \$2,351,479, and miscellaneous products, \$135,435, a total of \$56,712,734, a gain of \$10,341,414 over 1907-08. In addition to the statistics, of which these figures are a summary, Commissioner McLin's report has separate chapters upon classification of soils, citrus fruits, pecan culture, sugar, corn, cotton, cane and syrup, velvet bean and its uses, celery, lettuce, fish and oysters, immigration, manufactures, etc., full of facts of value to the intending home-seeker and investor.

THE COTTON MOVEMENT.

According to the report of Col. Henry G. Hester, secretary of the New Orleans Cotton Exchange, the amount of cotton brought into sight during the first eight months of the present season was 11,059,503 bales, an increase over the same period last year of 1,465,180 bales. The net exports were 6,878,357 bales, an increase of 1,632,954 bales. The takings were, by Northern spinners, 1,833,724 bales, a decrease of 3977 bales; by Southern spinners, 1,849,776 bales, a decrease of 15,381 bales. In the 247 days, up to May 5, the amount brought into sight was 11,106,522 bales, an increase of 1,461,448 bales. The net exports were 6,908,281 bales, an increase of 1,579,623 bales. The takings were, by Northern spinners, 1,858,135 bales, an increase of 6328 bales; by Southern spinners, 1,875,947 bales, a decrease of 18,978 bales.

Assessed value of property in Mississippi has increased in 10 years from \$215,765,947 to \$393,605,644, or by 81 per cent.

Kentucky's assessed value of property is expected to show an increase this year of \$22,000,000 over 1910.

To Talk by Underground Wire Between Boston and Washington.

An underground telephone line between Washington and New York will be ready for use probably in the early fall, and the National Capital can never again be cut off from wire communication with the rest of the country as it was at the time of President Taft's inauguration. The last section of the underground conduit, namely, the 100-mile stretch between Wilmington and Washington, is practically completed. The American Telephone & Telegraph Co. will this summer draw in and splice a new cable from Philadelphia to Washington, which will connect with the existing underground cable between Philadelphia and New York. A similar underground line is partly constructed between New York and Boston, and when both lines are completed it will be possible to talk the whole distance between Washington and Boston underground.

From an engineering standpoint, the new cable, which will connect Philadelphia, Wilmington, Baltimore and Washington, is radically different from any heretofore installed.

From the outside it looks like any ordinary 2½-inch cable. But the wires are larger than those now in use, and are so arranged that from each two pairs of the large gauge wires it will be possible to obtain simultaneously three complete telephone and eight complete telegraph circuits. In addition there are contained within the sheath a number of pairs of smaller gauge wires for use between intermediate cities along the route. These pairs of smaller gauge wire may also be used for telegraph purposes. All told, 148 wires arranged in 74 pairs and capable of giving 99 telephone and 296 telegraph communications simultaneously are contained within the 2 9-16-inch lead pipe which forms the protective coating of the cable.

There will be about 1500 reels of this cable and a total weight of nearly 3000 tons, and its shipment will require the use of about 120 freight cars. The cables will come in pieces averaging 500 feet in length, and when drawn into the underground duct will have to be spliced 1500 times, so that more than 250,000 wire joints must be made.

The wires in the cable will be insulated by about 140 tons of paper ribbon, equaling more than 24,000 miles in length.

At intervals along the cable, Pupin loading coils will be installed. Approximately 10,000 of these loading coils in nearly 400 cast-iron cases will be used. These cast-iron cases, with their quota of loading coils, aggregate about 200 tons in weight. The coils are connected with the main cable by a stub cable, and the wire for these stub cables is alone more than 170 miles in length. The loading coils for this section required 155,000 miles of iron wire for the cores, covered with approximately 25 acres of insulating material and wrapped with 7000 miles of insulated copper conductor wire.

An entirely new plant for the manufacture of the cable and loading coils was constructed at the works of the Western Electric Co. in Chicago, and material accumulated and preparations made for turning out the cable and loading coils more than six months in advance, in order that the field force might install two miles or more of finished cable a day.

The construction of the underground conduit line from Wilmington to Washington presented for the engineers of the American Telephone & Telegraph Co. many interesting problems.

Seventy-five bridges had to be crossed,

each involving its own peculiar problem in telephone engineering.

The concrete manholes used on this conduit line are an innovation in telephone construction. To turn out material for these manholes a concrete plant was established at Baltimore in a building on the main line of the Baltimore & Ohio, with a siding where freight cars could be conveniently loaded.

To keep ahead of the construction work it was necessary that the plant should turn out 25 complete manholes daily. Four hundred pieces of reinforced concrete were cast every working day. One thousand manholes were required for the work, involving the casting of 16,000 pieces of concrete. Forty men were employed in this work. Each piece of concrete was reinforced with No. 10 three-inch mesh standard expanded metal. The feature of this type of manhole is the thin slabs used in connection with heavier key-blocks.

The manhole is barrel shape, three feet wide by four feet six inches long, with three feet of headroom. The walls consist of four concrete slabs, three inches thick, reinforced by expanded metal. The roof is formed by two reinforced concrete slabs, four inches thick. The flanged cover is also of reinforced concrete, 24 inches in diameter.

When in place, the manhole cover is 12 inches below the street grade. A concrete post 4x6 inches is set two feet out of the ground at the side of the road, so that the exact position of the manhole may be readily ascertained. Upon each post is stenciled the number of the manhole and its exact distance from the marker. The manholes were placed at an average distance apart of approximately 500 feet.

The line consists of four ducts, except where it passes through towns, where the number is increased to five and six. The ducts used are what are commonly known as pump logs. The ducts are seven feet in length, three inches inside measure, and are treated with creosote by special process. They are of Southern yellow pine, thoroughly saturated with dead oil of coal tar, which is forced into the pores of the wood under pressure, the standard of requirement being 15 pounds of oil to each cubic foot of wood.

The ends of the pump log ducts fit together, making a tight joint requiring no cement. The pump log duct is very durable. Pump log telephone ducts laid in Philadelphia in the early 80s were dug up in 1907 and found to be practically intact. They were later used in another underground construction. Over 300,000 pieces of duct were required for the Wilmington-Washington line.

Telephone engineers do not follow the old maxim, "never cross a bridge till you get to it." On the contrary, they prepare plans in advance.

In the preliminary surveys all bridges and crossings had been carefully studied and the best methods of crossing them determined. Consequently, when it came to carrying the conduit across some 75 bridges and under many railroad crossings the plans were ready.

These bridges were of various types, with varying conditions, and the engineers in charge of the work introduced several new features in construction in carrying the ducts across them.

The usual method employed in the past has been to protect the cables by means of iron pipe, but this method possesses many disadvantages, chief among them be-

ing the fact that within a few years after being laid the iron is liable to rust and disintegrate. For this reason iron pipe in connection with bridge crossings has been avoided whenever possible. In the case of only 6 out of 75 bridges on the present work was it found necessary to make use of it.

Running a telephone duct across a bridge involves many problems. The conduit must not interfere with traffic; in case of a bridge over a railroad, the duct cannot be suspended where it would reduce the headroom; if avoidable, it must not be suspended where the spring freshets will force debris against it. Wherever placed, the telephone duct must be protected from damage in every possible way.

In many cases this was accomplished by incasing the ducts in a wooden box made of heavy creosoted plank, supported by angle iron and suspended by iron hangers from the bridge structure.

In some cases the angle iron has been laid across the bridge girders beneath the flooring, the ducts running across on wooden blocks placed at intervals, the whole being protected from mechanical injury by a wrought-iron plate or shield on the top and sides, a new thing in telephone construction.

This metal shield is for the purpose of protecting the wooden ducts from the danger of being pierced by spikes when repairs are being made on the bridge.

Where the conditions made it necessary to suspend the ducts from the side of the bridge, the engineers have swung the conduit on a curve, using iron ducts, protected by concrete construction. On the bridge the ducts are run in a heavy plank box resting on angle iron and secured by iron hangers to the bridge structure.

Many of the roads between Baltimore and Washington are improved highways, a 14-foot strip of macadam running down the center of the road. Some of the roads had been oiled, and it was feared that the work on the trenches would seriously impair the surface. Consequently strips of burlap, between 3000 and 4000 running feet in length, and eight feet wide, were used to cover the improved roads while the work of trenching was going on. Dirt from the trenches was thrown upon the burlap. After filling the trench the burlap was removed and transformed to another section, leaving the road surface uninjured.

Fair digging was generally encountered, and the rock gang, so called because its function was to remove large rocks and ledge from the trenches, was able to remove all such obstacles without delaying the progress of the work.

It is of historic interest to note that the route followed was that over which Professor Morse, inventor of the telegraph, planned to lay an underground telegraph conduit away back in the early days of the telegraph business.

Jefferson City Factories.

Between 1904 and 1909 the capital invested in factories at Jefferson City, Mo., increased from \$1,845,000 to \$3,079,000, or 67 per cent.; the value of products from \$3,927,000 to \$5,446,000, or 39 per cent.; the number of officials and clerks from 181 to 217, or 20 per cent., and the number of wage-earners from 262 to 1336, or 410 per cent.

Tennessee Fisheries.

The value of the products of fisheries in Tennessee in 1908 was \$112,000, of which buffalo fish represented \$22,000, catfish \$20,000, mussel shells, pearls and slugs \$14,000, black bass \$13,000, drum \$9500 and carp \$8200.

Intent Upon Greater Railroad Facilities for the South.

One Billion Dollars Needed in Next Ten Years.

By JOHN F. WALLACE of New York.

Through an examination made in 1908 of the Seaboard Air Line, and in the consideration of questions connected with other railroad interests in the South during the last few years, I became much impressed with the future possibilities of the development of the South Atlantic States and the rapidly-growing needs of this section.

There is no portion of the United States today which has a more promising future, if systematically and properly developed. That it is capable of supporting many times the present population is self-evident to anyone at all familiar with its resources.

Its two greatest needs are an increase in its working population and a systematic improvement of its transportation facilities.

To this end the first requisite, in my opinion, is the recognition of the common bond which joins together all of the manifold interests of the South—financial, agricultural, mineral, manufacturing and transportation, and the mutual confidence of all these interests in each other.

A prerequisite to this condition is the proper recognition of all classes and all interests, that their joint prosperity depends upon and will grow out of a proper respect for the rights of each and a resolution that to bring this about it is necessary to work together for the common good.

The first great need is increased capital for these various interests, and this can only be obtained by securing the confidence of capital and assuring it that it will be fairly treated and not unduly oppressed or restricted by drastic or unfavorable legislation.

As I remarked in an address delivered in Washington on December 8, 1908, "The needs of the railroads are the needs of the South," and this mutuality of need applies to all lines of human activity throughout the South.

Perhaps no section of our country will require greater investments to secure its full development, particularly in the line of transportation.

There is probably no section where the fixed charges on our railroads per mile of track are less, or where the interest rates on railroad investments are higher.

This is due to two causes:

(1) To the character of legislation on railroad matters.

(2) To the low density of traffic due to the large sections of undeveloped territory.

Increase in railroad facilities, the standard of maintenance and general railroad improvements have not, however, been keeping pace with the industrial progress, and a continuation of the present increase in the development of mines, manufactures, agriculture, etc., will in a few years bring about a situation in which the railroad facilities will be inadequate to properly serve the wants of this section.

In my opinion, it will be necessary for

the railroads to secure and expend \$1,000,000,000 during the next 10 years, and I believe there is no section of the country where money invested in the extension, betterment and improvement of existing railroad facilities will respond more liberally and freely to the investment than this section.

On the other hand, a crying need of the South today is an increased working population to develop its resources.

While the development of the great West and Northwest has been caused primarily by its railroad resources, a great stimulant to that development has been the systematic encouragement of immigration by the combined action of the Eastern trunk lines, the railroads serving the territory developed, and the international steamship lines plying between European ports and New York. Immigration secured by the combination of interests mentioned, stimulated by the large sums spent by the railroads in advertising the territory served by them, has produced wonderful results.

Up to date there has been no movement of this kind systematically entered into in the interest of the South Atlantic States, although the entire coast convenient to this territory is lined with ports of entry.

If the same methods were used in Southern development by the joint efforts of the railroad companies serving the territory and the various interests which would be benefited by the expansion and development of this section not only similar, but much greater results could be obtained.

[Mr. John F. Wallace, who retired from the office of chief engineer of the Panama Canal after inaugurating the American work on the canal and afterwards designed the new Chicago & Northwestern passenger terminal at Chicago, which has just been completed at a cost of \$25,000,000, has assumed active charge as President of Westinghouse Church Kerr & Co., who were the engineers for the new Pennsylvania Station in New York. Mr. Wallace also acted as railway expert for the reorganization committee of the Seaboard Air Line, which was reorganized on the basis of his report, and the prosperity of this railroad since its reorganization has more than justified his conclusions and predictions as to its earning capacity. Among the directors of Westinghouse Church Kerr & Co. elected at the annual meeting of the company are N. W. Halsey and F. Q. Brown of New York, George Westinghouse and J. R. McGinley of Pittsburgh and Homer Loring of Boston. Mr. Wallace, who is also President of the Electric Properties Co., which controls Westinghouse Church Kerr & Co., still retains the chairmanship of the board of directors of Westinghouse Church Kerr & Co., but on account of his well known engineering and railroad experience his great activity in the affairs of the company was considered advisable. Mr. Wallace succeeds Mr. H. H. Westinghouse as president of Westinghouse Church Kerr & Co., Mr. Westinghouse having succeeded the late Walter C. Kerr, but as other business affairs require all of Mr. Westinghouse's time, he recommended to the board that Mr. Wallace be requested to assume the active management of the company as president.—MANUFACTURERS RECORD.]

BIG IMPROVEMENTS FOR SEABOARD.

Millions to be Expended on the Road Bed and Rolling Stock.

"I would rather take the chance of losing interest for a year by having increased our facilities a year ahead of actual needs than be caught with inadequate facilities and unable to handle the traffic when it was ready."

Such was the statement of a leading railroad man, made to the MANUFACTURERS RECORD a few days ago in discussing plans under way for the extension of the facilities of his line. It seems to be the policy of the Seaboard Air Line. The Seaboard, through its recent financing, has been put in shape to carry out very large improvement work. The contracts let for rolling stock last week to the amount of about \$2,000,000 are only indicative of the spirit which is guiding the management of that company. The most important piece of work which the Seaboard is now considering is doubtless that of double-tracking its entire line between Hamlet and Norlina, a distance of 154 miles, and in connection therewith the reduction of grades on that important piece of road, which is the throat of the system, through which a vast traffic must flow. With the double-tracking of this piece of road, which is now under consideration, careful investigations having been made as to how best to handle this great piece of work, the whole Seaboard system would immediately be placed in a very much better position for taking care of its rapidly-increasing traffic.

The Seaboard Railroad has recently ordered 125 miles of new rails for strengthening the line at important points; it has

appropriated \$400,000 to be expended this year in the construction of new concrete and iron bridges, in order to be able to handle to advantage the heavier rolling stock now used; its traffic at Savannah has outgrown its facilities at that point, and it proposes to spend \$200,000 in the building of a new slip at its Savannah terminals and enlarging its trackage facilities to take care of increasing business at that point. This will involve the extensive enlargement of its Savannah yards, for which contracts are now being made. At Jacksonville its traffic has also grown beyond its ability to handle to the best advantage, and large extensions of its facilities at that city are being planned and put under contract, while at Tampa it is arranging to greatly increase its facilities for handling phosphate and other freight, as the business at that point is likewise growing very rapidly. The company has authorized the building of some 8 or 10 long sidings between Jacksonville and Tampa, in order to relieve the main track and to facilitate the handling of freight and passenger business.

Counting the \$2,000,000 contracts let last week for new rolling stock, and the projected double-tracking of the 154-mile line stretch between Hamlet and Norlina, with the enlargement of terminal facilities at Savannah, Tampa, Jacksonville and other points along the line, the new rails recently ordered and the \$400,000 appropriated for new bridges, there is in sight an expenditure for the betterment of the Seaboard system of between \$5,000,000 and \$10,000,000.

IMPRESSED BY SOUTHERN PROGRESS.

Views of Vice-President Randolph of the Baltimore and Ohio Railroad.

Gen. George F. Randolph, first vice-president of the Baltimore & Ohio Railroad, who last week was a member of the inspection party which made a detour southward as far as Atlanta, returned with hearty expressions of appreciation of what he saw in the South. Talking to a representative of the MANUFACTURERS RECORD about the trip, he said:

"What impressed me most was the advancement which is being made by Southern States in the building of good roads. In the Carolinas, Georgia and Tennessee we saw the work of road improvement going on in a number of places. I was told that the construction is being done by the counties, and it is a most valuable sort of development. You can build railroads and dig canals, but without good highways for the farmer to haul his produce over they cannot fulfil their entire duty to the people. The South needs more good roads, and it is gratifying to observe that it is going to get them. This work is evidence of a progressive spirit which is to be seen everywhere. Governor Crothers of Maryland, by the way, has done splendidly in furthering the good-roads movement in this State.

"Moreover, we observed here and there throughout the country new dwellings and farm buildings, some completed and others in course of erection. Wherever we saw a new roof it was testimony of advancement and growth. Besides, there was the same kind of progress to be seen in the towns and cities. I had not been to Atlanta for several years, and was surprised to see the number of skyscrapers that have been erected there. The activity and business atmosphere of the place are stimulating, and remind one of a Northern city. The style and comfort of the residences

is also noteworthy; the residents have beautiful homes. While Atlanta is a great point, it is, however, a city which owes its prominence to the fact that it is an intersecting point for the leading railroads in that part of the country. It is growing rapidly, and the number of tourists who stop there is increasing every year, as is the case also at Chattanooga.

"There is a place," continued Mr. Randolph, "which impressed me. Chattanooga is going to be a big city. It possesses great possibilities, and it is an important point between the West and the South. Lots of people stop there every year to and from the Florida resorts, and they all leave dollars. They have a large new hotel there, which is doing an excellent business that is increasing constantly. The manufacturing industries situated in and around Chattanooga arouse one's interest and admiration. It is a most impressive sight after ascending Lookout Mountain to see the valley for miles around marked by columns of smoke rising from factories in every direction. It will be a great place some day.

"Another thing that struck my attention forcibly was the excellence of the railroad facilities along the routes we traveled. I had been led to think that the Southern Railway was physically run down, but found that the contrary was the case. It has a good road, and the station facilities everywhere are excellent. President Finley has certainly written his name upon the South in what he has done on the system. I also particularly noted the excellent condition of the Cincinnati Southern Railway, in which, you know, the Baltimore & Ohio has an interest. Furthermore, you may understand what we think

of the South when I tell you that the B. & O. has just established two new agencies therein, so that we are now represented in Atlanta, Birmingham, Nashville and Memphis.

"Undoubtedly the South is the most prosperous section of the our country, and Mr. Edmonds, the editor of the MANUFACTURERS RECORD, who has been its unselfish advocate for nearly 30 years, will have all his prophecies concerning it realized. Why, I did not comprehend how the cotton-mill industries of the Southern States had expanded; their magnitude was a revelation. I was informed that last year the total number of spindles in the South almost equaled the total in the mills of New England, and I believe that this year the South will have the larger number. Moreover, the Southern mills take 50 per cent of the cotton crop used in this country for their output."

Mr. Randolph also referred incidentally to the trip which the Baltimore & Ohio party made over the Clinchfield road on their way to Atlanta, and spoke heartily

in praise of its construction and the great coal fields in and around Dante, Va., the present northern end of the line. The building of this road, he was told, would be followed by industrial developments all along its route. The party went from the Baltimore & Ohio over the Norfolk & Western to the Clinchfield road, and then over it to the Southern at Spartanburg, S. C., thence to Atlanta and Chattanooga, and finally over the Cincinnati, New Orleans & Texas Pacific Railway (Cincinnati Southern), back to the Baltimore & Ohio at Cincinnati. He referred to the new bridge which is being completed over the Kentucky River, and said that it is being built above and below as well as around the existing bridge, so that trains now running over the old structure actually go through the new one, which will be finished within a month. The track on the new bridge will be considerably higher than the track on the present structure, as the company, in making the improvement, seized the opportunity to eliminate a grade on each side of the river.

TO KEEP ABREAST OF TRAFFIC.

President Finley Talks of Double-Tracking Plans of the Southern Railway.

President W. W. Finley of the Southern Railway Co., who has recently returned from an inspection trip on which he was accompanied by members of the board of directors, in speaking yesterday at Washington of business conditions in the Southeastern States, said:

"The agricultural outlook throughout the entire Southeastern section seems to be very favorable. While in some localities in the Southwestern part of the territory rains have somewhat retarded cotton planting, and while replanting will be necessary in some small areas, it will have to be done to a very much smaller extent than was necessary last year. Notwithstanding the increased attention being given by Southern farmers to corn and other crops, the aggregate acreage devoted to cotton will be somewhat greater this year than last. The average preparation of the soil for planting this year has been unusually good. Farmers are using fertilizers more scientifically, and better farming is being practiced very generally throughout the South, which may be expected to result in an increase in the average yield per acre. As a result of their prosperous season in 1910, Southern farmers, to a larger extent than usual, are able to finance this year's operations themselves without the assistance of local merchants and banks.

"Conditions in the cotton-manufacturing industry are not wholly favorable, but as the season progresses more definite ideas as to the size of this year's cotton crop should bring about a more favorable relative adjustment of the prices of the raw material and the finished products of the mills. The lumber business is still feeling the effects of restricted purchases on the part of the railways, but a slight improvement is noticeable in some of the lumber-producing localities. The condition of the iron and steel industry in the South is substantially the same as in other parts of the country. With underlying financial and agricultural conditions favorable, and with a fair business in some industrial lines and some prospect for improvement in other lines, there is a reasonable basis for the expectation of an active business as the season progresses.

"The management of the Southern Railway Co. is not unmindful of the requirements placed upon it by the increasing volume of traffic throughout its territory. It is, therefore, continuing its policy of

improving its facilities for the development of business and for the movement of traffic. It has recently taken steps to add substantially to its motive power for passenger and freight trains and to its passenger-train equipment. Its carrying capacity is comfortably ahead of its present requirements. Looking forward to the progressive development of its territory, the carrying capacity of those parts of its lines where the traffic is not sufficiently heavy to require double-tracking is being increased by the construction of a modern system of lap-sidings, and these lap-sidings are being so constructed that, if business shall become sufficiently heavy for double-track lines, they can be used in a double-track system. In all of these matters the company is being governed by practical, and not academic, considerations, and, in pursuance of this policy, the management now contemplates increasing its main line double-trackage at a point where the volume of traffic is heavy, and expects to be able to keep fully abreast of traffic requirements without going beyond or straining its present financial resources."

Birmingham Iron Market.

[Special Cor. Manufacturers Record.]
Birmingham, Ala., May 8.

There is a feeling among the producers of pig-iron here that the worst is really over, and that from this time on there will be a gradual upbuilding in the iron market. Production has been curtailed to such an extent that it is not believed there will be any further recession in prices. In fact, with the production at absolute minimum, if there should be a still further curtailment in the production of iron there is a good chance of a slight improvement in prices. Most strenuous efforts have been made to break down the \$11 schedule, but without any degree of success. Prices remain as follows for the different grades per gross ton f. o. b. cars furnace, Birmingham: No. 1 foundry, \$11.50; No. 1 soft, \$11.50; No. 2 foundry, \$11; No. 2 soft, \$11; No. 3 foundry, \$10.50; No. 4 foundry, \$10.25; gray forge, \$9.75; mottled, \$9.50.

The cast-iron pipe market has had some fair inquiries before it, though there has been nothing of any large consequence pending. At the same time, it is these small orders that keep the foundries in this section busy, and there is not any prospect in sight now of any curtailment in the output with any of these foundries.

In fact, they appear to feel in much better spirits over the outlook than they have for some time. Prices are held firm on the following schedule per net ton on board cars here: Four to six-inch, \$22; 8 to 12-inch, \$21; over 12-inch, average \$20, with the usual preferential of \$1 per ton more in favor of gaspipe.

The scrap market remains about as it has been for some weeks. There is very little actually taking place here from week to week in the old-material market, and the prospects are not so favorable for any large transactions, according to statements of several dealers. While there is little being done, prices remain nominally as follows on board cars here:

Old iron axles, standard, \$16.50 to \$17.
Old iron axles, small, \$14 to \$14.50.
Old steel axles, light, \$14 to \$14.50.
Old steel axles, standard, \$15 to \$15.50.
Old iron rails, \$13.50 to \$14.50.
No. 1 railroad wrought, \$12 to \$12.50.
No. 2 railroad wrought, \$9 to \$9.50.
No. 1 country, \$7.50 to \$8.
No. 2 country, \$7 to \$7.50.
No. 1 machinery, \$9.50 to \$10.
No. 1 steel, \$10 to \$10.50.
Tram car wheels, \$9 to \$9.50.
Standard car wheels, \$12 to \$12.50.
Light cast and stove plate, \$8 to \$8.50.

CLAY PRODUCTS INCREASE.

Greater Demand for Fire-Resistant Materials.

The enormous fire tax on the people of the United States imposed by flimsy and inflammable buildings, says Jefferson Middleton of the United States Geological Survey in "Clay-Working Industries," an advance chapter of "Mineral Resources" for 1909, has aroused public sentiment on the subject of fireproof construction, and as a result the demand for fireproof structures is increasing, and the growing use of brick and other products of burned clay has been the natural consequence. The use of hollow building tile or block for outer walls seems to be on the increase. Some very attractive architectural effects have been produced with this tile in combination with brick and with stuccoed outer surfaces. Improvements in front brick, both in texture and in color, have been attained within the last few years and have enhanced the value of this product as a building material.

Not only was 1909 a year of prosperity in the clay-working industries, but it was notable for the introduction of some important improvements. The most prominent of them is the brick-setting machine introduced in the West. The idea of handling brick by machinery originated in New England, and a plant equipped several years ago with an elaborate system was the first to use the "unit stack." By this system the unit for handling was 1500 brick. This plant was destroyed by fire and was never rebuilt. In 1909 a system of handling from 600 to 1000 bricks on a somewhat different plan was put into successful operation in the West, and is now being used in Chicago. By this system it is possible for the brick to be carried from the molding machine to the drier, from the drier to the kiln and from the kiln to the stock yard or the delivery car or cart without being touched by hand. Each of these machines is said to do the work of 40 men.

More and more attention is being given to the preparation of clay by weathering, mixing, grinding, screening and tempering before it is passed through the molding machine. It has been found that the quality of the product is much improved by better preparation of the clay.

The great tendency in the clay-working industries is to reduce the cost of production by the use of more efficient machinery

and by the elimination as far as possible of hand labor.

The year 1909 was a record-breaker for clay products—bricks, tile, pottery, etc.—the value of the output being \$166,321,213, as compared with \$133,197,762 in 1908. The value was even higher than that of 1907 (\$158,942,369), regarded as the banner year for the production of minerals generally. The United States Geological Survey has just issued an advance chapter of "Mineral Resources of the United States" for 1909—"Clay-Working Industries," by Jefferson Middleton, which shows the year to have been a remarkably prosperous one in this important industry. In brick and tile products every item except fancy brick, sewer pipe and stove lining increased in value. In the pottery industry every item showed an increase. The imports of pottery showed a gain of less than 1 per cent., although the domestic product gained 23.53 per cent. and the exports of high-grade domestic pottery likewise increased. The exports of all clay products increased 22.24 per cent. Every State and Territory except Alaska, but including Porto Rico, is a producer of burned clay, and 42 States showed gains.

The following are the 10 States with highest recorded production for 1909:

| State. | Brick and tile. | Pottery. |
|--------------------|-----------------|--------------|
| Ohio..... | \$16,929,885 | \$13,416,356 |
| Pennsylvania..... | 19,403,944 | 1,782,769 |
| New Jersey..... | 9,380,958 | 7,791,136 |
| Illinois..... | 13,505,898 | 838,355 |
| New York..... | 10,270,227 | 1,887,398 |
| Indiana..... | 6,744,295 | 990,323 |
| Missouri..... | 7,387,061 | 73,122 |
| Iowa..... | 4,846,706 | 51,990 |
| California..... | 4,312,590 | 124,575 |
| West Virginia..... | 1,159,627 | 2,350,470 |

The great growth shown in some of the clay-working industries during the last decade is interesting. Common brick increased from \$38,621,514 in 1900 to \$57,251,115 in 1909; vitrified paving brick from \$4,764,124 to \$11,269,586; front brick from \$3,864,670 to \$9,712,219; drain tile from \$2,976,281 to \$9,799,138; sewer pipe from \$5,842,562 to \$10,322,324, and fireproofing from \$1,820,214 to \$4,466,708.

Common brick numbering 9,791,870,000 were manufactured in the United States in 1909, also 1,023,654,000 vitrified paving brick and \$16,164,000 front brick, a total of 11,631,688,000. The value of all these bricks was \$78,232,920. This is the greatest number of bricks, with the highest value, ever produced in this country in any one year.

The production of fire-bricking material for 1909 was more than 50 per cent. greater than the output for the preceding year, and even higher than that of the record year of 1907. The output for 1909 was 55,150,000 pieces of fire-bricking, the equivalent of 838,167,000 nine-inch fire-bricks. The total value of these bricks was \$16,620,695, an increase of \$5,924,479 over the value for 1908.

Boca Grande Terminal Facilities.

The Boca Grande Terminal Co. telegraphs to the MANUFACTURERS RECORD regarding the progress of construction on the company's terminal facilities at Boca Grande, Fla. Its bin and belt conveyor is completed and in operation, with a daily capacity of 6000 tons of phosphate. Its lumber dock is under construction, and will be completed as soon as possible. The company's terminal improvements will cost about \$250,000.

Moultrie Oil & Fertilizer Co.

The Moultrie Oil & Fertilizer Co. of Moultrie, Ga., has been chartered with \$75,000 capital stock and privilege of increasing to \$1,000,000. It plans to erect a plant for ginning cotton and manufacturing cottonseed oil and fertilizer. The incorporators are G. F. Taylor, R. J. Corbett, W. C. Vereen, J. W. Coleman and associates.

Productive Farms from Cut-Over Timber Lands.

[Special Correspondence Manufacturers Record.]

Hattiesburg, Miss., May 6.

Determined, energetic efforts to put settlers on the 3,000,000 acres of cut-over pine lands of Mississippi are being made at the present time as never before in the history of this or any other Southern State, and from indifference, not to say backwardness, it would seem that Mississippi will shortly take a leading place among the States making organized efforts to attract immigration and secure the development of unoccupied lands. In addition to firms and individuals operating for immigration on their own account, a State organization, the Mississippi Land Development Association, was formed a year ago to secure the settlement of cut-over lands, and will have a meeting in June at Gulfport to report progress and formulate further plans. The Mississippi Pine Association, headquarters at Hattiesburg, has endorsed a plan by its secretary, James A. Kirby, providing for an advertising campaign and the settlement of lands belonging to members of the association. And now comes a company of Northern hustlers, men with means and experience, who, under the name of the Mississippi Colonization Association, capital \$250,000, domiciled at Hattiesburg, propose to spend at least \$100,000 in a preliminary campaign of advertising and to make the settlement of Mississippi cut-over lands their life work. With full knowledge that it means much money, the hardest of hard work and also much time, they have "enlisted for the war." Herein is the significance of their undertaking. The standing and experience of the men and the magnitude of their plans calls attention to the fact that the settlement of cut-over lands has now become a "movement."

Southwide, from the Atlantic Ocean to the Trinity River of Texas, wherever pine lands have been denuded of their timber, there is thought and effort in greater or less degree given at this time to the rescue of these denuded lands from an abandoned state of uselessness to a highly beneficial one of settlement and cultivation. In some instances the sawmill men themselves are undertaking the task of interesting settlers; in most cases, however, the initiative and the enterprise, the plan, the money and the salesmanship must be supplied by men who are experienced in the work of preparing lands for the market and finding for them purchasers and settlers of a desirable class.

Wonderful tales are told of the almost endless variety of product—grain, truck, fruit and what not—which are being profitably raised on cut-over lands all over the South, and the prophets and seers foretell a development in these lands as important as the drainage of the wet lands of the valleys and the coast. How soon or how easily this development may be brought about, however, the thoughtful do not undertake to say. It is not every immigrant who will elect to go into a wilderness of stumps, and it is manifestly a proposition in which the units must be small. It will take management and skill and energy on the part of many land men to solve the problem in a big, broad, successful way, so as to get large bodies of land tenanted and cultivated at an early day. And the very immensity of the area of unoccupied lands and the conditions which have prevailed are among the greatest obstacles to be overcome.

Just how many million acres of arable

but now denuded and desolate lands the sawmill men have left in their wake in the South has not been accurately computed, because there was for a long time small thought given to the possibilities they might possess for farming purposes. The sawmill in the wilderness might build up a settlement, which was often ephemeral and altogether dependent on the mill, where "tinned" goods and packing-house products were shipped in from the outside, with scarcely a garden patch or fruit tree to be seen, and when the nearby timber was cut off the mill would be moved to a site further on in the forest, and the population would follow, leaving a dreary landscape of old stumps, deserted shacks and a huge pile of sawdust. The sawmill man usually had his hands full in taking care of his timber operations; what might be done with the land was a matter that gave him small concern. The land was the "leavings" or the "dump"; the timber the metal in the ore. It cost money and much time to remove the stumps and clear and break the land, so the landseeker and the colonization agent joined the sawmill man in his neglect and disregard of the cut-over lands. Many a sawmill man let his lands revert to the State for taxes after the timber was cut, and to a recent date almost only one of them would have felt wondrous fine if he could get \$1 an acre for cut-over lands.

When came a time that the fat and easy pickings of the prairie West were all taken up, and frozen Canadian fields and irrigated arid lands began to attract the ever-increasing land-hungry horde, the lure of the luxurious South crept over the public sense, and gradually such an interest was aroused as to constitute at times and in places something akin to a stampede. Florida has seen almost a craze over her fruit and truck lands for a number of years, and Texas shows up in the census with an average annual increase of 185,000 population for 10 full years.

With the realization at last by the Northern farmer that he can grow nearly everywhere in the South almost every crop that he is familiar with at home and get a greater yield per acre year in and year out, he woke up to the fact that nowhere in the country were there such bargains in farm lands as in the South. While the greater initial movement was toward the unbroken prairie lands of the Southwest, interest has expanded until every kind of Southern land is included. The prairie wet lands, which require drainage ditches and pumping machinery, have come in for a vast amount of attention in recent months, while former plantations and farms all over the older settled portions of the South are being bought by Northern and Western farmers.

In consequence, there has been an advance in the price of every sort of land in the South, and increasing consideration given to everything in the South on which crops might be raised. This has brought to the cut-over pine lands a degree of attention they have never before received, and in consequence the price has gone up until sawmill men will hardly entertain a figure much below \$5 an acre for large tracts. When divided into farm tracts of 40 acres up, the land dealer gets from \$15 to \$30 an acre, as a rule, for the land in the raw.

While, generally speaking, the cultivation of cut-over lands is in a primitive

condition and not extensively engaged in as yet, there is still in the aggregate a very considerable development going on all over the land, from the eastern to the western confines of the belt, and some of this development is of many years' duration. Around Valdosta and Cordele, and at Fitzgerald and elsewhere in Georgia, the lands are well occupied, and have been under cultivation most successfully for 20 years or so. Mississippi pine lands are pronounced very similar to the Georgia pine lands, and in the absence of complete soil surveys on which the Government is working, but which will not be finished for some time yet, it is the accepted opinion that a general similarity prevails throughout the entire belt, with such variations as are common to coast lands, uplands, latitudes, etc. The lands nearer the coast have a lighter, sandier soil, adapting them to earlier vegetables, celery, etc.; then come sandy loams and a heavier clay subsoil as the distance increases from the coast.

Government, State and individual experimentation is now being carried on rather extensively over practically the entire area, and in a few years it ought to be very definitely established what soils and localities are best suited for the wide variety of truck, staples, fruit, berries, nuts, etc., which are grown to greater or less extent all over the region. It will probably also be determined whether some tracts are best adapted to reforestation, and if others are most suitable for grazing and dairy purposes.

It would seem improbable that the whole Southern pine belt is simply waiting for a transformation that will make it one unbroken Eden, and yet there is an ever-increasing cloud of witnesses giving testimony to the variety and abundance of the yield which almost forces that conviction upon one's mind. These witnesses are here and there, at various places between the Georgia coast and the Texas prairies. The experiences they have had is the testimony they give. It is impractical to recite the cases in detail. Any commercial organization or land man in any of the cities of the cut-over belt will supply such information for the asking. As an illustration, a Frenchman near Wiggins is raising California grapes, and finds they bear earlier, yielding two and a half-pound bunches within 15 months of planting, and he pronounces the country better adapted to grapes than any he has seen, including California. On a five-acre vineyard he has made \$1500 in two years from settling on it. Paper-shell pecans thrive anywhere here where the soil is not droughty, and so many groves are being set out that nurseries cannot fill their orders. At 10 years they yield an average of \$10 to \$15 a tree, 6 to 12 trees to the acre, and do better every year for one or two hundred years.

Satsuma oranges appear to thrive along the coast, bearing the third year, and producing \$600 to \$1000 per acre after seven years.

Everywhere throughout the belt truck farming can be made to pay. With a warm soil an active man may raise five or six crops a year. At Hattiesburg H. A. Camp planted lettuce in January, which he pulled in 60 days, and then planted potatoes. He is digging them now and planting snap beans. They will be gathered in 60 days, and he will then plant corn for roasting ears. They will be ready in 60 days from planting, and after that he will plant turnips. Subsequently he could plant potatoes to be gathered in January. Several hundred dollars an acre are made by truck growers when all conditions are favorable. One man near Lumberton has made \$400 an acre on

cucumbers, and cucumbers do so well that the extensive cultivation for the markets and for pickles is assured.

The entire list of vegetables that have been profitably raised in the belt would resemble a seedhouse catalogue. It would almost seem that with proper effort and organization the cut-over lands of Mississippi alone could supply the tables of a large portion of the population of the nation, and certainly the entire cut-over belt of the South, now so nearly unoccupied, would, under intensive farming, staff off for many a generation the famine that Jim Hill so dolefully predicted as inevitable because of an approaching dearth of land.

Experimentation has not been confined to truck-growing, however. Corn, oats and even wheat on the uplands do exceedingly well throughout the belt. So do all kinds of forage crops, including peanuts. Thus cattle, hogs, sheep and poultry are profitable investments in the belt.

The oldest development in the belt, and an interesting and thoroughly convincing one, is that inaugurated by Capt. J. F. Merry, immigration commissioner of the Illinois Central Railroad, in Tangipahoa parish, La., 26 years ago. Captain Merry purposely passed by the alluvial lands along the line of his road and selected what he regarded as the most unprepossessing in appearance—what were regarded as about the poorest lands on the road. In the midst of a cut-over waste he located the town of Hammond. At that time Tangipahoa raised hardly anything beyond an occasional disturbance, the population being more inclined toward turbulence than toil. Through Captain Merry's own incessant efforts the population of the parish has grown from 10,000 to 30,000, most of the increase being located along the line of the railroad, and from shipping nothing but lumber from anywhere in the parish there was sent from the one town of Independence last year more than \$1,000,000 worth of strawberries alone. This year the parish yield of strawberries will be over \$3,000,000, besides carload lots of truck and vegetables and quantities of chickens and eggs. Hammond is the center of the largest dairy interest around New Orleans as well, and the taxable valuation of the parish has been increased from less than \$2,000,000 to more than \$10,000,000.

The development here has been largely brought about by Italians. In other sections, particularly in Alabama and Mississippi, efforts are being successfully made to induce native farmers of the North, Germans and other North Europe peoples to colonize in communities where they will be the predominating class. For a generation or so it is regarded as advantageous to have the community feeling that such an arrangement provides.

One of the first attempts to use the cut-over lands of Louisiana was begun five years ago by the Long-Bell Lumber Co. of Kansas City, on its immense holdings in West Central Louisiana at Bon Ami. The extensive experimental farm at that place has been conducted at a profit from the beginning. The plan has been to plant fruit trees, including oranges, and grapes, and to cultivate other crops between the rows. The adaptability of the land for a wide variety of crops has been amply demonstrated.

Elsewhere in Louisiana other lumber companies and individuals have taken up the work, and there has been organized at New Orleans a State Development League, whose object is to influence desirable settlers to locate on cut-over as well as alluvial and other lands in the State.

In Texas the most ambitious scheme in contemplation is that of the Houston

Oil Co., identified with the Kirby Lumber Co., which is working on plans for the settlement of cut-over lands in their 100,000-acre tract. No definite conclusions have been announced as yet, but it is the understanding that work on a comprehensive plan will be commenced before so very long.

Alabama lands have found a ready sale, even when similar lands in Mississippi have not been in demand, as land agents have testified. Among other operations in that State there is a very interesting development work in the vicinity of Mobile, where a number of local capitalists, under the name of the Mobile Farm Land Co., Inc., have bought 20,000 acres of cut-over lands on a plateau 300 feet above sea level, beginning a few miles west of the city limits of Mobile. The tract has been cut up into 40-acre units, and Northern people are being invited to locate there. Through the very comprehensive and ingenious plan worked out by L. C. Irvine, manager of sales, the company will do about anything a purchaser may want done. The lands are sold at \$30 an acre raw. If the purchaser wants the land cleared of stumps, etc., the company will do the work for \$15 an acre, and prepare it for 16-inch plowing. For \$5 an acre more it will be plowed and disced, and for \$5 additional it will be fenced. Then, if the man wants a house built, the company will put him up any kind he may choose. If he isn't a farmer, the company will hire him as an apprentice at one of the company's demonstration farms and pay him day laborer's wages till he is ready to graduate. Or if he wants to stay on his job elsewhere for the time being, the company will cultivate his tract for him and pay him 80 per cent. of the net profits. If the purchaser wants to get a colony of neighbors and friends, the company will reserve any number of 40s adjacent to his own for any reasonable period. There is a former Government expert in charge of the agricultural operations, and everything is run in ship-shape. "And if anybody has a kick, we are right here to receive it," says Mr. Irvine. "We are all living in Mobile; this is a life job with the officers in charge, and we can be got at by telephone and automobile in no time at all."

Forty families have been located since the tract was opened a few months ago, and there are 10 or 12 farm apprentices enrolled. When the company sells the 20,000 acres it is the intention to buy more. This company also has "enlisted for the war."

A notable development is that of the Mississippi Farms Co., organized with \$150,000 paid up capital, with general offices at Des Moines, which has bought about 40,000 acres of the Finkbine Lumber Co.'s holdings in Harrison, George and Jackson counties, Mississippi. This company is only now getting under way. Sales offices will be maintained in the Commercial National Bank Building, Chicago, and at Wiggins, Miss. Experimental farms and nurseries have been established, farms will be sold in 10-acre tracts and upward, at the rate of \$25 per acre and on small monthly installments if desired. Very attractive literature has been printed and an effective sales organization formed, with the intention of starting on a vigorous campaign this fall. So far only preliminary work has been done, but it is stated that sales have been made to every excursionist who has inspected the lands.

A recent development project of note is that of the Lampton Realty Co., Magnolia and New Orleans, which has arranged to open for colonization and settlement 26,000 acres of cut-over lands south of Lucedale, Miss. The tract will be

known as the Lampton Lands. Mr. S. S. Thorpe, an experienced land man of Chicago, will have the management of the project.

Near Lucedale is a 5000-acre tract belonging to G. M. Luce, whose home is in Mobile, on which very extensive and interesting demonstration work has been conducted for some time.

All over the belt there are other developments or experimentations of greater or less extent and interest.

The plan of the Mississippi Colonization Association is unique. The company is composed of Willis S. Thompson, Leo V. Shearer and James M. Sullivan of Chicago. Mr. Thompson has had a wide experience as business manager of successful newspapers, many of which he owned and sold at a profit, and he knows the country from ocean to ocean. His associates are well qualified as land and immigration agents. They have ample means, and are spending their own money. After months of investigation they have evolved a plan for extraordinary publicity as the first step to take. They propose to give away from 100,000 to 200,000 acres of cut-over lands in 40-acre tracts to people who will settle themselves or cause a representative to settle and cultivate a tract for three years. Every candidate must have sufficient means to clear his tract and put it in cultivation in order to qualify. The allotment will be made October 1 on the plan adopted by the Government in settling Indian lands. Contracts are being made with owners of cut-over lands by which tracts as agreed on will be listed. H. A. Camp, president of the Hattiesburg Trust & Banking Co., has been appointed by the Governor of Mississippi as trustee to carry out the terms by which deeds are to be delivered to settlers after three years of occupancy. Ten per cent. of the acreage donated is to be deeded the association as a fee, but only after three years' settlement, as in the case of the other lands donated. Four 40s only in the center of a section will be given away.

It is the belief of the association members that the magnitude and the method of the preliminary campaign and the allotment will fix the attention of the whole country on Mississippi as nothing else would, and that hundreds of thousands of people will become so keenly interested that a demand for all the cut-over lands of the State will be created. The plan they have adopted is simply the Government land entry plan as applied to Indian lands, only the fortunate holder of a certificate pays nothing for his land, gets a deed in three years instead of five, and can put a substitute on the tract in case he doesn't desire to do the pioneer work himself. The idea in each case is to get settlers, and the association makes conditions as liberal as that purpose will permit.

Those familiar with conditions fully realize that it will take a long, hard pull to populate the denuded lands, which in Mississippi are increasing at the rate of 60,000 acres a year, while less than 1000 a year are being settled up. It is no picnic to pull stumps or get rid of them by any of the other methods of fire or dynamite. There are 75 to 100 stumps to an acre, and any cost below \$10 per acre is considered favorable. A cheap and expeditious method of eliminating the stumps has yet to be solved. A Gulfport turpentine process plant pays \$2 a ton for pine stumps, so that if there was a good cheap stump-puller the total cost would be reduced. But at present the favorite plan is to burn them out in one of a half-dozen different ways. The most economical way for the settler is to leave all but the first five acres of a tract for odd times and

moments that would otherwise be idle. This would reduce the cost to a minimum.

At the worst, however, it isn't half as bad a case as the settlers of the Middle West lived through, where whole forests of hard wood—trunks, stumps and all—had to be destroyed before any kind of farming could be engaged in. The climate, the yield, the cheapness of the soil give assurances that it is only a matter of time till all Southern cut-over lands will be taken up.

ALBERT PHENIS.

Learning One's Own Town.

Board of Trade,
Winston-Salem, N. C., May 3.

Editor *Manufacturers Record*:

About a month ago we inaugurated an industrial exhibit of the factories of Winston-Salem, showing especially the lines which have not hitherto been made in the South, and opened our doors to the citizens and visitors of our city. Something like a thousand people visited the halls during the first two weeks and showed great interest in the numerous manufactured articles there exhibited.

My past experience has shown me that the average citizen of the city has little idea as to what his own town possesses and what it is turning out, and believing that a fuller appreciation on the part of our home citizens regarding our home city, which has a population of 30,000, was as good work as the Board of Trade could do, I took the matter up with the superintendent of our city schools and made arrangements for each child in the school, from the fifth grade to the tenth grade, inclusive, to visit this exhibit hall in a body, by grades, and spend an hour not only viewing the products of our various factories, but in hearing a talk which I delivered for an hour, explaining the various phases surrounding the industrial life of our city, the natural advantages it possessed in climate, pure healthful water, abundance of raw material, good freight-rate facilities and easy access to good markets. I showed them (just for illustration) where one factory had taken the ends which would have been burned up or thrown away, and at dull times used labor which was not working on full time, and had made up these scraps into various small commodities used in the home, thus utilizing the waste material and surplus help. The refuse or pyrites turned out by the fertilizer plants has hitherto been used for ballast on the railroad. Some of our local people, appreciating the fact that there was enough ore in this commodity for commercial purposes, erected a large plant here and are turning out 100 tons of ore per day, which, when sent away to a smelting plant and returned, is worth about \$14.90 delivered; then, taking the children on, show them the value per ton of a railroad bar of iron and then what it is worth in a line of small articles, such as that recently patented by one of our North Carolina citizens, where iron is used for the brace of a small canopy for the children, the value of a ton of those small parts should be \$1000, thus showing that it is not the ore in itself, but the utilization of the brain power of the man; not what he does with his hands, like the day laborer, but the brain power within him properly utilized and developed. We show what it would mean were the local people to more fully appreciate the value of using the product of home institutions, thereby not only developing great industries in our own midst, but at the same time creating a greater market for the raw material which in many instances is grown by the farmers in our local communities.

We also go very minutely into the details of every phase of our city and county life, relative to the county, State and city

tax rate, and for what purpose the taxes are used, showing the relative position occupied by Winston-Salem as compared with other cities of similar size. We show why manufacturers have been so successful at Winston-Salem and the relative increase from year to year under the different conditions of each period, and it is surprising to find the intense interest manifested by the children of the schools here. About 200 essays have already been written by these children, who in many instances have come back to my office in groups of 15 to 20 at a time to obtain additional information, and it is our purpose, as soon as this course of lectures is complete, to offer a prize for the best essay and perhaps print in pamphlet form 25 of the best.

In my opinion, there is no work so valuable to a community as that of intelligently educating the citizens of that community to a fuller realization of what their community really is, and the part that they occupy relative to its success or failure. Each citizen should be a traveling salesman, a city patriot and stockholder in the fuller development of its commercial life, helpfulness and scenic beauty and the profit which naturally accrues in dollars and cents where healthy conditions and a happy, prosperous, contented people are doing each and every one their part to aid the city in its every department to a higher attainment of the various departments of municipal life.

J. S. KUYKENDALL,

Secretary.

Little Rock View of Panama.

[Special Cor. *Manufacturers Record*.]

Little Rock, Ark., May 4.

J. L. Fein, who left Little Rock for Panama about four years ago, has returned for a short visit to relatives, and talks most entertainingly of his stay on the Isthmus.

Mr. Fein is a native of Little Rock, and, with his father, has been in the employ of the Government during all these years. He is a blacksmith, and for the past 13 months was employed on a drill boat on which was conducted the work of breaking up the rock below the water, so that it can be handled by the dredgers. Holes are drilled to a depth of 50 feet below mean tide, filled with dynamite and exploded. Thousands of tons of dynamite are used each month on this work.

"It is estimated that the canal will be completed by December, 1913," said Mr. Fein, "but it will not be opened for steamer traffic before January, 1915. It is generally reported down there that nearly all of the year 1914 will be consumed in cleaning up, installing buoys and lights, breaking in the lock-tenders, etc."

"The completion of the canal means much for the entire South, and will be of inestimable value to the entire State of Arkansas, and, in my opinion, it will work a revolution in the commerce of this part of the country. I am handling on the Isthmus much Little Rock and Arkansas literature, which is being furnished me by the Little Rock Board of Trade, and I expect that when the canal is completed Arkansas will have a very desirable immigration of Americans from the Isthmus."

Acid Phosphate and Sulphuric Acid.

A plant for manufacturing acid phosphate and sulphuric acid will be built by the Pelham Phosphate Co. of Pelham, Ga. It will have an annual capacity of 15,000 tons of acid phosphate. Contract for the erection of the buildings, 80x350 and 100x450-foot structures, has been awarded to W. T. Jay & Co. of Shilman, Ga. Peter S. Gilchrist of Charlotte, N. C., is the architect for the Pelham company.

Granite Industry Development Around Salisbury, N. C.

[Special Correspondence Manufacturers Record.]

Salisbury, N. C., May 5.

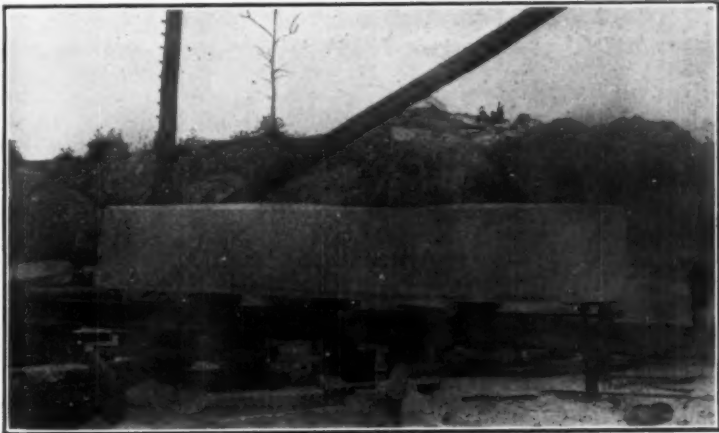
Here in Rowan county, and only a short distance out from Salisbury, are to be found granite deposits inexhaustible in quantity and of a superior quality, some of which it is impossible to duplicate. These granite deposits are now receiving more attention than ever before, and bid fair to increase in this section the importance of an industry which was once confined almost entirely to the New England States.

The local area in which this granite occurs marks a nearly continuous ridge ex-

tending to the southwestward for a distance of more than 12 miles, the ridge being easily traceable by the outcropping of great boulders, and in many other places the granite makes its appearance in great flat surfaces, varying in size, one at least, being easily three acres in extent. The highest point of this ridge is Dunn's Mountain, which in reality is a solid mountain of granite, its elevation being about 900 feet above sea level and about 150 feet above Salisbury. The topographic features of this ridge are such as to facilitate the quarrying operations, and in most cases the quarries are opened on the slope of the hills, and the present conditions favor continued production without increase in expense.



GRAY GRANITE IN ROWAN QUARRY.



BLOCK OF GRANITE 28 FEET LONG AND 6 BY 6 FEET FOR COLUMN.

The granite is found in both a light gray, nearly white, and in a beautiful soft pink color, not a red or salmon, both being uniform in texture and of a most desirable quality that lends itself easily to all grades and character of work for which granite can be used. In both the gray and pink granite there is a remarkable quality. They split with accuracy in three direc-

tions, making them a perfectly safe working stone, showing no lamination or stratification. This makes it possible for the granite to be easily quarried in neat patterns or dimension stone up to the limits of transportation. Another feature of this granite that commends it is its great strength, as shown by the tests that were made with the testing machine at the United States Arsenal, Watertown, N. Y., where, in competition with granite taken from the quarries of Maine, New Hampshire, Massachusetts, Connecticut, Virginia, Minnesota and other granite-produc-

ing States, the samples submitted of Rowan county granite taken from the Balfour quarries showed a compressive strength of from 43,670 to 51,990 pounds per square inch, and were at least 65 per cent. stronger than any other granite found in America. This so impressed Major J. McNutt that in submitting his report he said: "The phenomenal strength displayed by these samples makes the tests of great special interest. The material tested was found to be very strong, much above previous tests made at this arsenal." As the Watertown arsenal is the recognized authority, the accuracy of the tests may be relied on. The strength of this Balfour granite appears in another way. Its coefficient of wear is 20.8. This is as high as trap rock, which averages about 20.6, and is considered the best road metal in existence. Other granites have coefficients of wear ranging around 10. Some Concord granite is as low as 7. These are also United States Government figures, and may be verified by reference to the reports of the United States road material

laboratory at Washington, D. C. The coefficient of wear is determined by use of standard rattler.

The gray stone at present is being chiefly used for street work, such as paving blocks, curbing, flagging, etc., although it is considerably used for building stone and ornamental work, as it is susceptible to a very high polish, giving it a decided richness in appearance.

The pink granite has identically the same texture and mineral composition as the gray, the pinkish tint being caused by the coloring matter in the crystals of feldspar. That the pink color is not a superficial phenomenon is shown clearly by the fact that in those openings from which the pink granite has been quarried the color is uniform for the entire depth of the working. This pink granite is known as the Balfour pink, being quarried

whether it is polished, rubbed, hammered or left rock-faced, the same tone of pink remains; in fact, it is its peculiar beauty that captivates.

As a further illustration of its weathering qualities, there stands today near the quarries an old house built in 1753, in which were used a number of the pink blocks, and today they present the same appearance as does the newly-quarried stone.

A visit to the quarries is decidedly instructive, as it is here you see how the stone is quarried and each step may be followed until the cars are loaded ready for shipment. One feature in particular that strikes the visitor is the making of paving blocks. These are all made by hand, and as the huge piles of finished blocks are viewed it seems that to make all these blocks by hand is well-nigh impos-



IN THE FAITH GRANITE CO. QUARRY.



IN THE BALFOUR PINK QUARRY.

in the Balfour quarries, and is especially sought for use in building operations and as a monumental granite it has the unqualified approval of architects and builders, and on account of its incomparable warm, soft tone of delicate pink appeals to artists and sculptors, who particularly like it for statuary, monument work and mausoleums. Moretti expresses their opinion when he says:

"It has life. I have never seen anything equal to it."

There is no stone which more perfectly harmonizes with bronze tablets or statuary. Further than this, the Balfour pink has all the characteristics that go to make up a granite of the very first class, one of its strongest features being its weathering qualities, for Balfour pink quarried 20 years ago is absolutely unchanged and retains its freshness unimpaired, as it does not stain or absorb moisture, and, having no mica or other injurious minerals to cause disintegration, it is simply impervious to the weather, and, being a close-grained granite of such durability, it polishes easily and with brilliant effect. But

sible, but a few moments spent with the block cutters and seeing with what ease the granite is split, the piles of blocks are forgotten. It is amazing to see this hard stone split straight and true with sharp edges and with faces practically at right angles to each other, and done seemingly with the ease and accuracy of a man splitting soft, straight-grained pine wood with a sharp axe. These blocks wear extraordinarily well, are savers of labor and require less filler than the ordinary run of granite paving blocks. They are labor savers, as they present at least two, sometimes three, and often four serviceable heads, greatly reducing handling costs in laying and doing entirely away with the cost of redressing. When, after long years of service, it is finally necessary to repave, it is only necessary that the blocks be turned and reset. So straight and true are the sides of these blocks that they can be laid with joints not exceeding a half inch, and will average less, thus reducing quantity of filler used, as one engineer who used these blocks figured, a resulting saving of 50 per cent. in the cost of filler.

Then again, since the wear on granite blocks is first apparent in the crumbling away of edges, the closer the joints the less chance is there for wearing away at the block's weakest point, and they do not allow ruts to form in the pavement if the bed and filler are right.

The granite cutters are paid by the piece, and while all are union men, the majority work as individuals, and not as employes of any of the quarrying companies. The granite is quarried in suitable size blocks, which is then derricked to the cutters, who are scattered in every direction; it is then the cutter's work to split

ing to the Watertown arsenal tests, shows greater resistance to crushing than any granite that I know of in this country. It splits very evenly, with a clean, straight fracture, which is an essential feature in the economical manufacture of granite blocks. With the Salisbury blocks there is no trouble in meeting the specifications providing for one-half inch as the maximum width of joint. They can also give very excellent surface or face to the block. If their prices are lower than the prices named by the Maine and other New England quarries I see no reason why Baltimore should not use these blocks in all of

from the pink quarry finds a ready sale, being shipped to Barre, Vt.; Westerly, R. I., and Cleveland, O., to be finished there, and it also finds an excellent market abroad.

The quarries of the Harris company are fully equipped with hoisting engines, derricks, air drills and cutting tools. As there is always a certain amount of waste accumulated around dimension stone quarries, this waste is here utilized, the grout from both the dimension stone and paving block operations being loaded in regular railroad cars and transferred to the crushing plant, where they are dumped directly into the crusher; the element of waste is practically eliminated, as all of the crushed stone and granite sand is used for one purpose or another.

The crushing plant is equipped with McCully gyratory crushers and a set of Edison crushing rolls capable of producing 1500 tons of crushed stone a day. This crushed stone is used very extensively and shipped to many cities, both North and South, for concrete work, road metal, bitulithic, patented granitoid blocks, etc. The output of the quarries, not including blocks, for 1910 was 110,000 tons, and the estimated output of blocks for this year is 3,000,000, which, averaging 4000 blocks to a car, would require 750 cars. If they should run 25 cars to a train, 30 trains would be necessary to transport the blocks to their destination. The number of men employed at the quarries is limited only by the demand for output. The largest single stone shipped weighed 35 tons.

All of the granite used in the postoffice buildings at East Liverpool, O.; Carlisle,

running to the crushing plant and quarries of the Harris company.

The Faith Granite Co., Salisbury, N. C., with shipping point at Granite Quarry, N. C., is also operating quarries about six miles due south from Salisbury. It has as miles due south from Salisbury. The company's output includes dimension stone for building and ornamental purposes, as well as for curbing and flagging; but it does not get out any paving blocks, confining its work very largely to hammered building stone, which is finished at the quarries. Some of the buildings for which it has furnished the stone are the Episcopal church, Raleigh, N. C.; postoffice, Salisbury, N. C., and Aiken, S. C.; for the Statehouse, Dover, Del.; mills at Danville, Va., and the Westervelt Mills, Greenville, S. C. Among its contracts for street work may be mentioned curbing, street crossings for Pittsburg, Pa.; curbing for Asheville, Norfolk and Raleigh, and flagging and about 100,000 feet of curbing for Newbern, N. C.

These quarries are equipped with derricks, but the stone is drilled by hand at the present time. However, they are considering putting in an air compression plant to operate drills and stone dressers, etc. There are no railroad accommodations at this quarry, and all the stone must be hauled about two and one-half miles to shipping point. The question of railroad facilities is being taken up, and some of the townships have already voted bonds for this purpose.

The Leland Company, South, is now erecting in Salisbury a plant for the cutting, sawing and polishing of granite. This



PAVING BLOCKS ON SIDING ON THE PROPERTY OF THE HARRIS GRANITE QUARRIES CO.

up the larger blocks into the size used for the paving of streets. There are a large number of granite cutters who "wild-cat" it along the ridge, buying boulders from the owners of the property and then dressing the granite for use either as curbing or paving blocks, selling them to the quarries, who are always ready to buy. Some idea may be had of the number of blocks a cutter is able to turn out in a day when it is considered their average income is from \$4 to \$6 per day, and they are paid two cents for each block turned in after inspection. On account of the climate they are able to work practically 12 months in the year. In many cases the men own their own homes and are in a prosperous condition generally. The development of the quarry industry has caused to spring up a village of from 1000 to 1200 people, known as Granite Quarry, which supports a number of stores and has a bank with deposits of upward of \$30,000, though it has only been doing business 18 months. The bank is under the efficient management of Mr. R. C. Jones, cashier.

These quarries have been visited by engineers from such large cities as New York, Chicago, Baltimore, Columbus, O.; Newark, N. J.; Lynchburg, Danville, etc., who are very enthusiastic in their endorsement of the paving blocks. Mr. B. F. Fendall, city engineer of Baltimore, after visiting these quarries recently, said: "Before permitting the use of the block by contractors having contracts with this department I went to Salisbury, N. C., made thorough and careful examination of the quarries, of the output and into the methods of manufacture, and returned to Baltimore entirely satisfied in every particular, and authorized the contractor to use the blocks under his contract. The company having these quarries owns an enormous amount of granite with a great many openings, and apparently have ample capital for the operation of the quarries, and at the time I visited the quarries they had a very large number of blocks ready for shipment. The granite is exceptionally hard, and, accord-

ing to the Watertown arsenal tests, shows greater resistance to crushing than any granite that I know of in this country. It splits very evenly, with a clean, straight fracture, which is an essential feature in the economical manufacture of granite blocks. With the Salisbury blocks there is no trouble in meeting the specifications providing for one-half inch as the maximum width of joint. They can also give very excellent surface or face to the block. If their prices are lower than the prices named by the Maine and other New England quarries I see no reason why Baltimore should not use these blocks in all of

its work. While at the quarries I also observed some very excellent curbing and dimension stone which they were getting out for building and monumental work." The Harris Company alone ships on an average of 10 carloads of the blocks per day, which is equivalent to from 30,000 to 40,000 blocks, and these blocks are going to all sections of the country. More than a million went during the past year to Chicago, Ill., alone, and almost as many to Newark, N. J.; 150,000 to New Orleans La.; 600,000 to Columbus, O., with Baltimore, Md., and other cities getting a large number.

Quarries were opened and worked along this ridge before the Civil War, and operations have been carried on more or less actively ever since, with varying degrees of success, but it is only during the past year that more determined effort has been made to place these quarries upon a stronger and better commercial footing, and from the present outlook success seems to be assured, as the granite is here and the market is almost unlimited.

The Harris Granite Quarries Co. is the largest operating company here, and was organized June, 1910, taking over and consolidating the American Stone Co., the Dunn Mountain Granite Co., the Esson Granite Co. and the Stacey crushing plant, and leasing the Balfour Pink Granite Co. and a tract of land known as the Murphy property. Both of these properties the company has since purchased, and is now operating extensively. In purchasing the Balfour Pink Granite Co. it secured control of the output of Balfour pink granite.

The base courses, sills and balustrades of the Blackstone Hotel, Chicago, are of polished Balfour pink granite, as are the Smith Memorial Arch, Andover, Mass.; Worth Bagley Monument, Raleigh, N. C.; and Parsons Monument, Philadelphia, Pa., consisting of a cross 25 feet high, which was carved out of a single stone that weighed 22 tons. There are many other samples of this granite scattered throughout the country. The dimension stone



FISHER & McCOMBS MILLSTONE PLANT.

Pa.; Paris, Ill.; Minerva, O., and other cities was the product of these quarries, as were also the four monolithic columns, 4 feet in diameter, 23½ feet long, fluted, all the work being done at the quarry, for the University of Western Pennsylvania, Allegheny, Pa.; Palmer & Hornboster, architects, New York.

The market for the gray granite is to be more closely followed hereafter, and a conference has just been held by the Harris company with the assistant traffic manager of the Southern Railway and an agreement has been reached whereby the Southern Railway is to construct special well cars to carry on edge pieces of stone that are too large to be carried on flat cars. The Southern Railway has a spur track

will in all probability be the first plant to be adequately equipped with saws and lathes to be erected in the South; in fact, outside of New England. The coming of this company to Salisbury is the result of the personal efforts of Mr. G. R. Collins, secretary-treasurer of the Harris Granite Quarries Co., who clearly demonstrated that it was the vantage point toward all Southern granites, as they could all be easily assembled here and give the plant a complete variety of granites necessary to the operation of an extensively equipped finishing plant. At comparatively low rates they are enabled to assemble here granite from Oglethorpe, Ga.; Winnsboro, S. C.; Heath Springs, S. C., and Mt. Ulla, N. C.; Gabbro or black granite, Balfour

pink and Mt. Airy, N. C., granite, all having distinctive characteristics, and each particularly suitable to certain classes of work, giving a more complete variety of granites than could be obtained within a like radius at any point in New England. Salisbury, being a junction point of the main east and west line and the main north and south line of the Southern Railway, has exceptional good railroad facilities for the distribution of the output. It is to be the aim of the Leland Company, South, to supply Southern granites for Southern monuments, and it is a fact, too, that a good deal of Southern granite is now being shipped in the rough to New England plants to be finished, and then shipped West, indicating clearly the necessity for a finishing plant in this section.

Recently a block of pink granite was shipped as dimension stone to Red Beach, Maine, to be sawed and polished and then shipped to Chicago, Ill. The Church of the Good Shepherd, in Raleigh, N. C., wished to get some polished granite columns, and would have preferred to use Southern granite, but was compelled to buy these columns in New England for the reason that they could not be obtained anywhere in the South.

For the present the company will use the corps of designers of the Leland Company of New York, but part of the shop organization will be brought here from Barre, Vt. In the issue of the MANUFACTURERS RECORD for April 20 the dimensions and equipment of the plant were given in detail. The Leland Company has also built a shop and showroom in Atlanta, Ga.

Another phase of the granite industry here is the making of millstones out of what is called the North Carolina white flint granite. This stone has proven to be one of the sharpest and best granites yet discovered for grinding fine, good cornmeal. This granite is found about six miles south of Salisbury, in Rowan county, near the little town of Faith. These flint buhr stones have been made in this section for many years, and there has been a steady and increased demand for them.

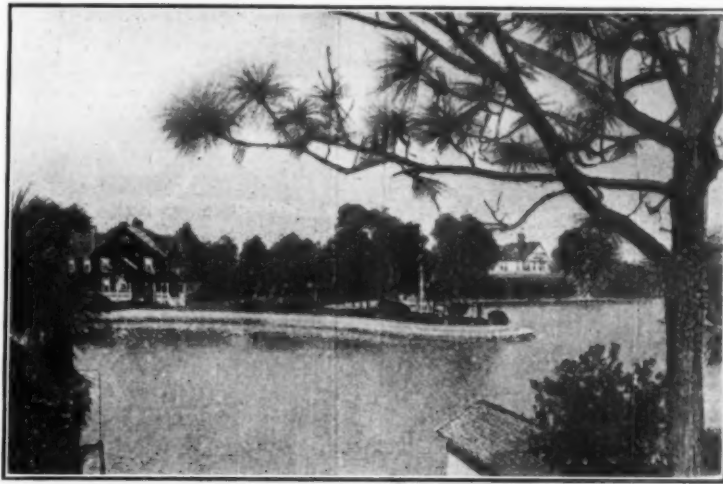
The principal quarry and maker of these buhr stones is the firm of Fisher & McCombs, Salisbury, N. C., with shipping point at Granite Quarry. Mr. Fisher of this firm is one of the pioneers of this industry. The firm's output at present is from 100 to 150 pairs of white flint granite buhrs per month. They are sold almost exclusively to the W. C. Meadows Mill Co., North Wilkesboro, N. C., manufacturers of portable corn mills. The buhr stones run in size from 12 inches to 36 inches in diameter, and from 4½ to 6 inches in thickness. The equipment of the quarry consists of the usual hoists, power being furnished by an International Harvester Co.'s gasoline engine, which gives perfect satisfaction, and, on account of the location of the quarry, is ideal for the purpose used. About 20 to 25 men are employed as stone cutters, drillers, etc., all this work being done by hand, but as the demand for these buhr stones is increasing so rapidly, the firm has under consideration the installation of an air compressor plant to operate drills, etc., in order to better meet their increasing business.

J. LOUIS SPENCER.

Wants Oil-Mill Plans.

The Rowesville Cotton Oil Co., E. N. Chisholm, president, Rowesville, S. C., will rebuild its plant, and wants to correspond with architects relative to plans and specifications. Its new building is to be 100x100 feet, of mill construction, and will be equipped with seed-cleaning machinery, elevators, conveyors, hull packer, etc. A daily capacity of 40 tons is proposed.

A GREAT FLORIDA SPRING.



The great body of water which gave the name to Tarpon Springs, Fla., is classed by all of the old citizens as bottomless. The center appears to be a hole curbed with jagged rocks. Sometimes the weight has lodged and then dropped on to the extent of the sounding line afterwards. Many citizens say that they know the depth to be in excess of 700, 800 and 900 feet deep. Once, when a depth of 200 feet was reached, an obstruction was encountered; then it was dislodged, dropped on further, and the line broke. A very heavy weight has to be used, on account of the depth, and when divers are sent down in the springs, as they have been recently, they report the same great jagged hole, which, so far as they can find out, is without bottom. The spring is supposed to be the principal outlet of that beautiful Lake Butler, which lays just a mile east of the town. It is seven miles long and over a mile wide, has numerous inlets, but no outlet other than probably this big spring. Tidewater comes up into the spring, and it has acquired the name because it was the playground of the silvered king of fish, the tarpon. It is a great boiling spring, whose depth has never been positively ascertained by living man.

LOADING AT GULFPORT'S GREAT PIER.



Commercial Union.

Gulfport, Miss., May 4.

Editor Manufacturers Record:

The population of this port has increased more than 500 per cent. in the past 10 years. The harbor, which is the result of the courage, brains and money of Capt. J. T. Jones of Buffalo, N. Y., was not open for commerce until 1902. During that year more than 19,000,000 feet of lumber was exported, but during the past 11 months 268,000,000 feet of lumber was exported. Vessels may be loaded direct from railroad cars on the pier, which extends from the mainland more than a mile out to sea. It is several hundred feet wide, and has on it a number of railroad tracks and a street-car line. The docks are extended along the entire length of the basin on the north and east side with work now in progress for facilities on the west side. The tracks along the docks are so arranged as to enable vessels taking or discharging to load or unload directly to or from the cars without having to handle freight but once, and this is done with the vessel's steam and tackle. An immense warehouse platform for handling cotton has been constructed, and the British steamship Ormiston cleared recently with 11,959 bales of this commodity. A few months ago a vessel left Gulfport harbor drawing 23½ feet of water, loaded with over 3,000,000 feet of lumber. Until recently lumber and naval stores constituted the bulk of export business through this port, but now other cargoes of different commodities, such as cotton, fertilizers, hominy feed, pyrites, phosphate rock, steel, railroad material, etc., have grown in proportion with the lumber traffic.

G. O. CARLOVITZ,
Secretary.

Tennessee's Resources Pictured.

Nashville, Tenn., May 6.

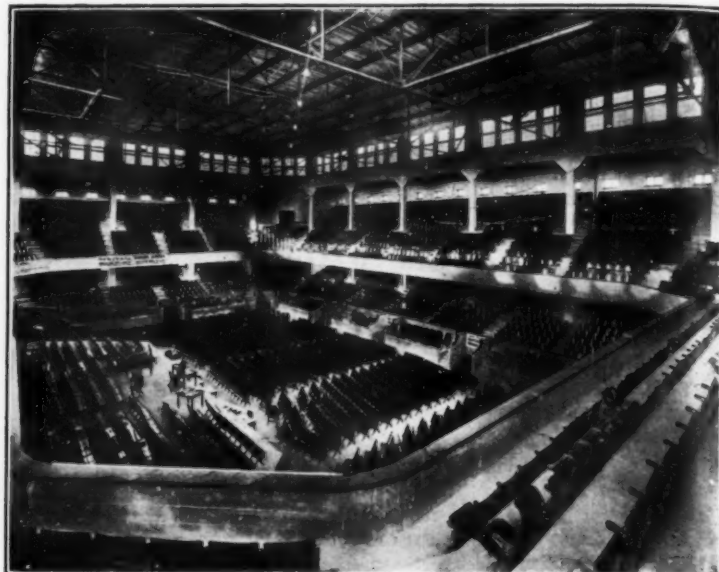
In this day and age, when people write in shorthand, they more and more want to read in pictures, unless the matter is one in which they have already become interested. Taking this view of the case, the State Geological Survey of Tennessee, George H. Ashley, State Geologist, Nashville, has supplemented the bulletins it has been issuing, which are intended primarily to give information when information is wanted or requested, by a little bulletin describing very briefly the resources of the State, but telling the story largely through photographs. This is intended to interest the man who is now not interested, but who may become interested, and through that interest may ultimately move to Tennessee or invest in Tennessee. Nor is this report intended alone for the people outside of the State, but for Tennesseans who may not realize the advantages, the wealth, the development or the future possibilities of their own State.

The new bulletin is quite comprehensive in its scope, describing not only the various mineral resources, but also the soils, the forests, the topography, climate, transportation facilities, etc., even citing the State's wealth, its debt, tax rate, etc. It not only says that Tennessee is a pleasant place to live, but it shows by selected pictures from the several sections of the State that it is. It not only says the cities are progressive and busy, but it shows by pictures, buildings, homes, parks, business sections, wharves, etc., that the cities are busy, up to date and attractive. Attractive pictures of good roads and other country scenes show some of the phases of country life. The forest resources are illustrated by cuts taken from the flank of the Great Smokies to the bottoms of the Mississippi. Tennessee happens to have a number of industrial plants that are the largest of their kind south of the Ohio River. Several of these are pictured in illustrating those industries. Pictures are also given of chert, limestone and marble quarries, of coal, iron and other mines, and iron foundries, copper smelters, etc.

On the whole, one can hardly look through the bulletin, even though he does not have time to read it, without gaining the general idea that Tennessee is a pleasant land, beautiful in its physiographic aspect, a good place to live, rich in many kinds of resources, and that those resources are being developed on a more or less large scale. In addition to showing what already exists here, or is being done, the bulletin especially calls attention to opportunities for further expansion or for further development, either in agricultural development or in exploiting the State's wealth of minerals. It states that many of the mineral resources have hardly yet been scratched, and are only awaiting capital to become the source of much profit.

Copenhagen Motor Exhibit.

In connection with the fishery congress at Copenhagen, Denmark, in August, 1912, there will be an international motor exhibit in dealing with everything concerning marine motors, such as motors and other engines for fishing vessels and boats, with petroleum, steam and electricity; articles belonging to motors, motor fuel and lubricators, models, drawings, etc. The marine motor has greatly influenced the fishing industry in Scandinavian countries, and it is expected that this exhibition will provide not only the most natural place of meeting for competition among motor manufacturers, but also discussions regarding the varied applications of motors to fishing.



MUNICIPAL AUDITORIUM AT HOUSTON, ERECTED AT A COST OF \$260,000.

Reinforced-concrete fireproof construction; 150x251 feet; contains 4500 cubic yards of concrete; floor of concrete with four-inch base and one-inch top, covered with pine flooring; two reinforced-concrete cantilevers support balcony, gallery and inclines; no stairways or columns; architects, Mauran & Russell of St. Louis and Houston; contractors, H. L. Stevens & Co. of Houston.

MOTOR TRUCKS AS MISSIONERS.

An Impetus for Good Roads in a Carolina County.

[Special Cor. Manufacturers Record.]

Anderson, S. C., May 5.

The Chamber of Commerce of Anderson, in working for the betterment of its city and county, has formulated a unique plan that will serve as an impetus to the good-road movement in that part of the South and will show the real value of the good roads. It will also show that good results can be obtained by use of motor trucks that the merchants of Anderson propose to use in delivering their wares not only inside the city limits, but to every point in the county. If the movement is successful the motor trucks will be used as generally over the county as the telephone. In fact, they will no doubt play as prominent part in the activities of the county as the proposed interurban itself, if not more so. In speaking of this plan Mr. L. E. Norryce, secretary of the Chamber of Commerce, said:

"Anderson county has the best roads, perhaps, in the State. They are broad and well rounded up, and in some sections well graded. It is proposed now to put

the 2000 miles of roads in the county on as perfect grades as possible from the limits of the county to the county-seat, preparatory to operating motor trucks to every farm of importance in the county. Several merchants of the city stand ready to start these motor trucks as soon as the grades of the roads justify it, and, once a few merchants start motor trucks, others will of necessity do likewise, and before a great while this enterprise will extend to every section of the county. Telephone lines now extend all over the county, connecting with the city and the long distance lines, and when the motor trucks are started the farmer can have his supplies sent to him while he keeps his teams and hands steadily in the fields. There will be no losing of time going to and from market, and the motor trucks will not cut up the roads as badly as iron-tired wagons and teams.

"To carry out this plan of good roads and motor trucks the Chamber of Commerce of Anderson has appointed a strong committee to co-operate with the County Supervisor and with him, his aid to formulate working plans and to outline a method of properly financing the work. It is possible a special tax will be recommended

of perhaps two mills per annum for a period of 10 years, which will produce sufficient each year to cover the amount of work that can be accomplished. However, it may be determined to accomplish the work desired at once, in which event the special levy will go to liquidate bonds to the amount of several thousand dollars. The committee appointed to have this work in charge is composed of H. H. Watkins, chairman; W. R. Osborne, W. L. Brissey, R. R. King, Geo. W. Evans, J. S. Fowler, Raymond Fretwell, J. Fulwer Watson, S. E. Moore, B. Bleckley, A. M. Carpenter.

"The people of Anderson county are quite enthusiastic over this plan of motor trucks and good roads. They argue, and quite justly so, that if this plan can be put in operation as outlined the effect in enhancing the value of all farm lands and in producing business will be almost equivalent to running trolley lines in all directions in the county, without the cost incident to trolley lines, and that instead of one section being built up while other sections are not benefited, a fact as to trolley lines, every section will receive direct benefit and all will build up together."

ROY G. BOOKER.

Tidewater Cement Plant.

The MANUFACTURERS RECORD is advised by R. N. Soper, manager of the sales department of the Tidewater Portland Cement Co. of Baltimore, that his company's plant at Union Bridge, Md., will be in full operation before August 1. This plant was fully described and illustrated in these columns in April, 1910. It includes steel and concrete fireproof construction buildings and modern machinery for a daily capacity of 2500 barrels of gray and 500 barrels of white Portland cement. The company also has a plant for a daily output of 800 barrels of hydrated lime. Its engineer in charge for building the cement plant was the Fuller Engineering Co. of Allentown, Pa.

Rice Millers.

The Louisiana and Texas Rice Millers and Distributors' Association, in session at Lake Charles, La., elected Messrs. J. E. Broussard of Beaumont, Tex., president; George Hathaway of Crowley, La., and Walter S. Davis of Galveston, Tex., vice-presidents; J. H. Leguonoc of Beaumont, secretary, and John Green of Crowley, treasurer, and planned to raise an annual fund of \$200,000 to advertise rice.



CENTRAL OF GEORGIA RAILWAY SHOPS AT MACON.

Views of \$2,000,000 plant completed in April; enclosed in locomotive shop yard is about 26½ acres and in car shop yard about 16½ acres; blacksmith shop, 100x260 feet; machine and erecting shop, 175x510 feet, with second floor 40x510 feet; erecting shop has 22 pits for locomotives; in this building are 10, 20, 30 and 120-ton traveling cranes; boiler shop, 130x260 feet, with 30-ton traveling crane for handling boilers, tanks and heavy material; roundhouse has 32 stalls or pits; storehouse is 77x200 feet, with two floors, each having track that brings cars on level with floors; car shop is 195x304 feet, with capacity of 24 cars; storage capacity in car shop yard for over 300 cars; present force of shop employees about 1000 men; daily capacity of locomotive shop is about one locomotive per day, and of car shop is repairs to 30 to 40 cars and building 6 to 10 new cars.

Water Transportation for Alabama Coal & Iron.

Joseph H. Hoadley, president of the Alabama Consolidated Coal & Iron Co., wires the MANUFACTURERS RECORD that he and associates have purchased the Lake Borgne Canal, with a view to developing the handling of coal and other trade down the Warrior River and through the Lake Borgne Canal to New Orleans.

It has for many years been a dream of Alabama people that when the Government work in deepening the Warrior River and building the locks necessary to make it navigable at all seasons of the year had been completed it would be possible to ship coal and iron by water down the river to Mobile at a very low cost. The Lake Borgne Canal, which connects the Mississippi River with the Mississippi Sound, makes possible a short water haul from Mobile to New Orleans. The development of this water route ought to make it possible to very greatly increase the shipment of coal and iron and other products from the Birmingham district down the Warrior River to Mobile, to New Orleans and out to the world at large, giving to the Alabama coal and iron regions the advantages of water transportation upon which the Government has been spending millions of dollars in order to make navigable at all seasons of the year the Warrior River.

A dispatch from Birmingham bearing on the matter says: "The new owners of Lake Borgne Canal, it is understood, have already approved estimates for the river equipment providing for 250 barges and 25 tugs to be placed in the Warrior River, Mobile Bay, Lake Borgne Canal and the Mississippi River, besides floating cranes, coal elevating barges and docks at Mobile and New Orleans."

The Story of Alfalfa.

The Business League of Demopolis, Ala., has issued a booklet "The Story of Alfalfa and Its Home," for general distribution. It describes Demopolis as the metropolis of the famous canebrake lands and its site as the ideal location in the black belt of Alabama. Information is given as to soil of that section and its value for raising alfalfa and other crops, including corn, vegetables and fruits. The Demopolis district is described as an agricultural Eldorado, a lumber center for hardwoods as well as pine, a center of inexhaustible quantities of cement rock, sand and clay found in close proximity, and a location well fitted for stock raising, poultry farms, etc.

Steel Rail News.

[Special Dispatch to Manufacturers Record.]
New York, May 10.

The Seaboard Air Line Railroad has placed orders for 3700 tons rails with the Maryland Steel Co., and also for 4000 tons with the Bethlehem Steel Co. It is expected that the Tennessee Coal, Iron & Railroad steel mill at Ensley, Ala., will start up by June 15.

Arkansas Fisheries.

The fisheries of Arkansas produced in 1908 to the value of \$207,000, of which \$70,000 represented mussel shells, pearls and slugs.

Governor E. F. Noel of Mississippi has called for June 23 and 24 at Gulfport the second annual State-wide immigration convention under the auspices of the Mississippi Land and Development Association, L. E. Davis, Natchez, secretary.

It is announced that the first of the steel barges built by the American Bridge Co. for the Mississippi Valley Transportation Co. to ply between St. Louis and New Orleans will leave Pittsburg within a

few days. The barge is 200 feet long and 36 feet beam, and with a cargo of a thousand tons will draw nine feet of water.

Annual coal production in the United States is now near the half-billion-ton mark, the unofficial estimate by Edward Wheeler Parker of the United States Geological Survey of the output of 1910 being between 480,000,000 and 490,000,000 tons.

An interesting feature of the volume containing the annual reports of the city of Paducah, Ky., is a series of half-tone illustrations of the various phases of municipal activities and of some of the model public buildings.

Express shipments of cantaloupes have been going out of the Lower Rio Grande Valley, particularly from the vicinities of Mission and Brownsville, for some days, the first shipment having been made on May 1.

The total output of asbestos in this country in 1910 was 3619 tons, valued at \$68,357, an increase in production of 20 per cent. over that of 1909. Georgia and Vermont are the chief asbestos producers in this country.

The Mobile Commercial Club is arranging to ship a carload of slabs of tupelo and cypress to a fiber company at Hinckley, N. Y., with a view to a demonstration of the possibility of using pulp from the material in the manufacture of paper.

The proceedings of the annual meeting of the stockholders of the Virginia Fruit Growers, Inc., successors to the Shenandoah Valley Fruit Growers' Association, have been published in attractive pamphlet form.

Nearly \$2,500,000 has been voted by the people of the ninth Virginia district, lying in the southwestern part of the State, for permanent roads in that section, according to the *Richmond Times-Dispatch*.

The American Bridge Co., says a Pittsburgh telegram, has been given a contract to build seven steel-hull barges for the Government to be delivered at Memphis at \$9400 each.

Under the provisions of the new assessment act it is estimated that the assessed value of property this year in Maryland will be at least \$1,109,000,000, an increase over 1910 of about \$250,000,000.

The Board of Trade of Americus, Ga., is circulating an attractively illustrated pamphlet, describing the opportunities of the city and of Sumter county.

The Maryland Steel Co. at Sparrows Point has been awarded contract for building two self-propelled barges for the United States Navy.

The Southern Cypress Manufacturers' Association will have its annual meeting at New Orleans May 17.

The Newport News Shipbuilding Co. is reported to have a Government contract for two revenue cutters to cost \$476,000.

The Alabama Retail Hardware Association is in session this week at Montgomery.

For 120 Miles of Roads.

An instance of the extent to which some Southern counties are engaging in road construction is seen in the announcement that Union county, Mississippi, will receive bids until May 15 for 120 miles of public highways. These are all to be of earth construction and the profiles and specifications are on file in the office of Chancery Clerk C. S. Cullens at New Albany, Miss. W. G. Bias is chairman of the Road Commission.

GOOD ROADS

GIVING A \$2,000,000 ROAD TO A STATE.

Unique Features of the Coleman du Pont Boulevard in Delaware.

Gen. T. Coleman du Pont, president of the E. I. du Pont de Nemours Powder Co., Wilmington, Del., in an interview this week with a representative of the MANUFACTURERS RECORD said that he is proceeding with the plans for building the \$2,000,000 boulevard, which, when completed, is to be given by him to the people of Delaware.

The boulevard will be 110 miles long. It will extend from the northern boundary to the southern boundary of the State, with a right of way of not less than 100 feet and not over 200 feet. The authority of the State Legislature has been received, so that every step taken may be in accordance with the law; and, although this great highway is to be deeded absolutely to the State when completed, it has been the wish of General du Pont that a commission appointed by the Governor should select the route, determine the character of the highway and the construction material to be used. This commission has been appointed and three surveying parties have been detailed to survey the various possible routes of the boulevard. In order to carry out the plan the commission has been given by the State the right to condemn land needed for the right of way. The final route will be determined by the results of the survey. To some extent it will be influenced by the desire of communities or individuals to have the boulevard pass in their vicinity, as expressed in their readiness to co-operate in arranging for the right of way. General du Pont stated that in one stretch of 15 miles every foot of right of way had been readily given by the landowners, while in another stretch of 12 miles only three miles had so far been given. Other conditions, such as the distance from the larger towns by which the boulevard should pass and the deviation that should be made toward cities somewhat out of the direct route, will be taken up by this commission, so that the final route may be the best available. General du Pont states that when the route has been decided upon the work of construction will begin immediately and under his personal supervision. He is not only giving this highway to the people of Delaware, but he is also giving his time and energies to the undertaking, with which he is so thoroughly imbued. He is a graduate of the Massachusetts Institute of Technology, and his engineering studies and work render him eminently fitted to direct the carrying out of the plans he has formulated for this modern highway, which in the magnitude of the gift of a roadway to a State will be unique in American history. The construction will be of stone, gravel, slag, asphalt or such other road-building materials as shall be most available and deemed by expert highway engineers best suited to conditions as they may be found to exist at various points along the route. The construction will follow the best practice of road engineering and construction as to drainage, culverts, etc. It is intended to have suitable space for tree planting, sidewalks and beautifying the right of way. The portion of the boulevard to be devoted to the roadway and deeded to the State is to be 30 feet wide. The remainder of the right of way will be available for an electric-railway line, underground pipes and conduits for the transportation of oil, gas, water, steam or any other purpose for

which it can be legally used, provided, always, that such use is not detrimental to the highway for vehicular travel. It is proposed to establish stations at about every 10 miles, at which information of any kind desired may be obtained regarding the locality and at which supplies for automobiles, teams, etc., may be obtained.

One plan which General du Pont has had under consideration is to have a 12-foot roadway at each side of the boulevard, with a sidewalk and trees on the outer edge of each roadway, an electric line on the inner side of each roadway, and a walk with two rows of trees forming the middle of the boulevard between the two electric trolley lines. But, as previously stated, the final form of the highway and the exact route will not be decided until after the survey has been completed and the entire subject has been considered by the commission, which will act in conjunction with General du Pont and his engineers. Personally, General du Pont does not think that the boulevard should go directly through any of the principal towns, because it would frequently be subject to the disadvantages of sharp turns, and it is probable that in many cases the way would be too constricted for a boulevard. It is also possible that contention might arise between the authorities of the town and State. For these reasons he believes it would be preferable for the road to be at least half a mile from the town which it is to pass, with a branch road to extend from the town to the boulevard. It is estimated that the cost of the boulevard will reach \$2,000,000. This will be paid by General du Pont, and, when completed, the road will be deeded to the State and thereafter maintained by it. It is estimated that the cost of maintenance will be less than 4 per cent. per annum of the cost of construction. The enviable position of Delaware in having a citizen who has the will and the means to provide such a monument to civic pride is attracting the attention of the whole country.

General du Pont went to Delaware in 1902 from Louisville, Ky., where he was born. He has been a consistent advocate of good roads, and now undertakes this monumental work for the benefit of his State and as an expression of his own profound conviction in the value of good roads for the betterment of mankind. In speaking of his plans for building this road he said:

"I do not think any of us fully realize the benefit good roads will mean to the State. It would tend to develop it from one end to the other and bring our farmers nearer the market with their crops, and let people who know little of Delaware come here and see what we have and locate here. The French have enough roads to go around the world 14 times, kept up by the Government, and horses there pull three to five tons on the roads.

"In offering to build this road I want to say that I have no ulterior motive whatever. I wanted to do something for the good of Delaware, and at first I thought of a hospital, then of schools, and finally I thought that good roads would really do more for the State of Delaware than anything else I could do."

Since the publication of this offer the neighboring States of Pennsylvania and Maryland have taken up the question of building roads to connect with this bou-

vard, and it is possible that a part of this road will be an important link in the great highway that will no doubt eventually extend from New York or Montreal to Florida.

This Coleman du Pont Boulevard may well prove to be a most lasting monument to the family whose name has been closely allied with that of Delaware since 1802 when E. I. du Pont de Nemours founded

along the Brandywine the powder works that have become the greatest of the kind in existence. Delaware may well be felicitated on having within its bounds the broad-minded and liberal-hearted man who has made possible for the State a new era of prosperity, and who is providing a source of civic advancement which will be an inspiration for other men and other communities.

For the Memphis-to-Bristol Highway.

Mr. George A. Gowan of Nashville, president of the Memphis-to-Bristol Highway Association, in a review of the movement inaugurated last November to assure by two days' work in August a highway across the length of Tennessee, says:

"Some 30,000 men, using about 6000 wagons and teams, with all kinds of road-working tools, together with over \$122,000 to date has been subscribed to work on the road for two days. Bridge and culvert material and free right of way has been donated.

"The campaign is being directed by and will be in charge of civil engineers and experienced road builders, both of the United States Government and experienced road builders in the State. The different routes aspiring to secure the official route to come their way have in different counties made a number of different kinds of arrangements in order to secure the location of the highway. Some county courts have agreed to complete the highway; others to furnish a sufficient amount of money to complete it; other to build bridges and culverts, etc., and a number of citizens in other counties have combined and have agreed over their signatures to complete the road across their county. The result is that a complete first-class road will be built across this State at least during the fall months of this year.

"In order to locate the most feasible route the president of the association has been authorized to appoint a commission of 11, whose business will be to investigate the different conditions and offerings made, who will then locate, have surveyed and superintend the construction of the highway. The result of this campaign has been that there is more interest being taken in good roads in the State than ever in its history, so much so that the present Legislature no doubt will pass a law, the provisions of which will be such that it will be up to the standard of the best road laws in existence today.

"It is remarkable, and the writer is astonished at the success of the movement so far. It appears that all commercial organizations, drummers' organizations and corporations of different kinds have vied with each other in taking a hand to make this movement a success. About 92 newspapers in the State have willingly published the different bulletins which have been sent out from time to time directing the movement.

"The writer is therefore prepared to say that the plan, through the assistance of different organizations, to build a road across this State will be an unbounded success.

"It appears that it will be a part of the system running from Montreal, Canada, on through New York, Philadelphia, Baltimore, Washington, from east to west in Tennessee to Memphis and on through to New Orleans. The different States are now preparing to complete a road connecting as above indicated.

"The conditions existing in this State are such that the same kind of efforts applied in one county to successfully construct a road would be futile and useless in some other counties. The topography as well as the conditions are so very differ-

ent that the construction of a road in a county in West Tennessee would be costly, while to build one in counties in middle Tennessee would not cost one-half so much. This is on account of the material that is nearby in one place and entirely absent in the other. In this connection, however, let it be said that we have been experimenting some in some of the counties in West Tennessee, in that we have had roads properly surveyed and graded up to the requirements of the survey with the use of proper tools and following this after each rain and when a freeze would begin to 'thaw out' we have used what is known as a 'split log drag.' This experiment has been in process only three years, and the result is that we have some splendid graded roads that are as smooth as anyone can ask for, that has cost less than an average of \$4 per mile per year to maintain them. There is not a pound of hard material in them anywhere. This experiment has taught us that we can build some splendid roads in that portion of the State without the use of gravel or macadam.

"The result is that several different counties are now preparing to construct some roads in their counties like the above described. Graded roads we have found can be built for about \$750 per mile when done by contract. Of course, the width of the road will have something to do with the cost per mile. The road above referred to is 19 feet wide from ditch to ditch, with a 30-foot right of way.

"It is hoped that with the assistance of the press throughout the Union that this subject of good roads will be so successfully advocated and pushed along that a traveler can pass along with more safety, and that the farmers will save thousands of dollars that is now being lost every year in each county as a result of bad roads."

County officers of the Memphis-to-Bristol Highway Association already selected, with their headquarters, are as follows:

Benton county, Camden: President, R. L. Stockard; secretary, T. L. Lowry; commission, S. L. Peeler.

Carroll county, Huntington: President, Prof. J. H. Bayer; secretary, L. M. Rhodes; commission, Prof. J. H. Bayer.

Cumberland county, Crossville: President, Geo. W. Cline; secretary, Dr. V. L. Lewis; commission, Geo. W. Cline.

Decatur county, Decaturville: President, J. H. Smith; secretary, Joe Jennings (Perryville); commission, W. R. Denison.

Dickson county, Dickson: President, V. B. Miller (Sylvia); secretary, W. L. Pinkerton.

Davidson county, Nashville: President, W. R. Cole; secretary, C. C. Gilbert.

Dekalb county, Smithville: Commission, J. E. Conger.

Fayette county, Somerville: President, Capt. E. A. Maddox; secretary, W. E. Franklin; commission, Capt. H. C. Moorman.

Grainger county, Rutledge: President, W. G. Corum; secretary, T. W. Daniel (Lee's Springs); commission, Dr. A. E. Foster.

Greene county, Greeneville: Secretary,

F. A. Rosenblatt; commission, D. W. Harmon.

Haywood county, Brownsville: President, J. H. Estes; secretary, F. R. Ogilvie; commission, J. W. Brown.

Hardin county, Savannah: President, J. K. Barlow; secretary, W. O. Mangrum; Henderson county, Lexington: President, W. F. Appleby; secretary, W. V. Barry; commission, Col. H. E. Graper.

Hardeman county, Bolivar: Chas. A. Miller.

Humphries county, Waverly: President, J. M. Moody; secretary, R. D. Hart; commission, B. R. Thomas.

Hickman county, Centerville: President, S. G. Caruthers; secretary, Robt. H. Clagett; commission, J. B. Walker.

Hamlin county, Morristown: President, J. N. Fisher; commission, T. J. Hale.

Knox county, Knoxville: President, Cyrus Kehr.

Madison county, Jackson: President, C. B. Caldwell; secretary, T. H. Hartman; commission, L. L. Curtis.

Lawrence county, Lawrenceburg: President, J. W. Garrett; secretary, E. C. Coffman; commission, Marion Richardson.

Lewis county, Hohenwald: President,

J. W. Perry; secretary, J. G. Rice; commission, Dr. J. P. Dabbs.

Maury county, Columbia: President, Col. John S. Brown; secretary, G. T. Hughes, Jr.

McNairy county, Selma: President, Hon. J. C. Huston; secretary, H. P. Wood; commission, W. K. Abernathy.

Perry county, Linden: President, A. Kelly; secretary, J. W. Seaton; commission, John A. Greer.

Putnam county, Cookeville: President, W. G. Sadler (Monterey); secretary, Hon. G. A. Fleming (Monterey).

Shelby county, Memphis: President, W. A. Johnson (Ellendale); commission, D. Y. Wilson (Arlington).

Sullivan county, Bristol: Commission, J. H. Caldwell.

Wayne county, Waynesboro: President, J. N. Davis; secretary, J. L. Morrow; commission, T. J. Hughes (Clifton).

Washington county, Jonesboro: President, E. B. Hensley; secretary, H. C. Beauchamp; commission, W. F. Carter (Johnson City).

White county, Sparta: President, J. R. Tubb; secretaries, H. Camp and J. H. Anderson; commission, J. M. Taylor (Cave).

Jacksonville a Center of the Florida Campaign.

[Special Cor. Manufacturers Record.]

Jacksonville, Fla., April 29.

Duval county, in co-operation with the city of Jacksonville, is entering on an important campaign of good-roads construction. An issue of \$1,000,000 of county bonds has been voted, \$250,000 of which are to be available every year for four years. It is worthy of note that this year's instalment, taken by local bankers, brought 108, and resales have since been made at 112. With the proceeds from the sale of this million-dollar bond issue there will be a comprehensive system of county roads added to the 100 miles or so already built outside the city of Jacksonville. The plan is to extend the roads now leading out from Jacksonville so that they will be complete to the Duval county line in several directions. There has recently been finished an 18-mile boulevard from Jacksonville to Pablo Beach, where it connects with a natural beach road 40 or 50 miles long. Ten miles of this Atlantic boulevard is vitrified brick, which, after much experimentation, has been adopted as the standard good-roads here. While costing about \$19,000 a mile, the upkeep is so insignificant that it has been regarded as the best and most practicable road for automobile travel in the long run. The process is to plow, tamp and roll the sandy soil first, and then lay the brick flat. The surfaced roadway is 15 feet wide. Contracts for about 20 miles of such roads have been let locally. There are now about 12 miles of vitrified brick roads in the county.

A meeting was recently held at Duval Station, attended by the County Commissioners and good-roads enthusiasts of Duval and Nassau counties, in the interests of a road from Jacksonville through Nassau county to the Georgia State line. An agreement was reached by which each county is to pay half the expense of a bridge across Nassau River. Duval county is to build to the county line and Nassau is to continue the road to the Georgia line and also build a road to Fernandina. The Duval county road is already paved nine miles, half the distance, and is graded four or five miles further. This improvement is regarded as an immediate certainty, without reference to the route of the proposed extension of the New York-Atlanta national highway from Atlanta to Jacksonville.

The extension of the national highway is a project growing out of a visit made to Atlanta last year by officials of the Jacksonville Board of Trade on invitation of the Atlanta Chamber of Commerce, the especial occasion being a desire on Atlanta's part to hear how the Jacksonville Board of Trade had carried out the plan to secure so impressive a building as it owns. On this occasion of much gratification to Jacksonville the suggestion was made by the visitors that Atlanta and Jacksonville ought to be connected up by an extension of the national highway. The proposition was warmly endorsed, and in working out the details of the plan Hamilton Peltz, who laid out the New York-Atlanta highway, and Major J. A. Cohen of the Atlanta Journal, spent some time in making tours through the intervening territory, traveling over 1700 miles.

One possible route was by way of Waycross on the north, the other by Lake City to the west of Jacksonville. The Lake City route was finally selected. It is called the central or Tifton-Valdosta route. It is here regarded as certain that both lines of good roads will be insisted on by local interests. Before the decision a meeting between Duval and Baker County Commissioners and good-roads enthusiasts had been held, and an agreement entered into that practically assured the completion of a good road between Jacksonville and Lake City.

At a recent meeting of the good-roads committee of the Board of Trade plans were laid for a State-wide trip in favor of good roads. It was proposed that 25 or 30 owners of automobiles in Jacksonville should go out on an automobile trip that will practically cover the State. Meetings will be held, speeches made and every effort put forth to arouse local interest in good roads, so that with the extension of the New York-Atlanta highway to Jacksonville there will have been aroused sufficient State interest to insure the continuance of the road to Miami and Tampa, to the incalculable advantage of the State through developments that will follow.

The Board of Trade is also at work in a plan to secure the creation of a State highway commission. On their way to the annual meeting of the County Commissioners and the State Good Roads As-

sociation at Tallahassee it was arranged to have the party stop off at Jacksonville to be entertained and to hear an exposition

of the bill the Board of Trade has drafted for the creation and operation of a State highway commission. ALBERT PHENIX.

The Louisville and Nashville Highway.

By CHAS. C. GILBERT, Secretary Memphis-to-Bristol Highway Association.

In ante-bellum days, before railroad connections were had between Louisville, Ky., and Nashville, Tenn., there were two stage roads which were used as a passageway from one city to the other. These roads were the best in the country, and neither time or money was spared in their building. It is said that the engineer for the State of Kentucky, who surveyed and superintended the building of these roads, was the best that could be had. Nowhere in the country will there be found a more perfect piece of road building, from the standpoint of grades and engineering, than what is now known as the old Louisville and Nashville turnpikes, which parallel on either side the Louisville & Nashville Railroad.

When these pikes were used as stage lines, at the same time each day large coaches, accommodating a number of passengers, would leave over these roads at the same hour and journey toward their objective points. At one place on the route they would come within four miles of each other, yet they were separate and distinct stage lines.

The South was rehabilitated after the terrible conflict between the States, and prosperity followed rapidly in the wake of dire destruction. The Louisville & Nashville Railroad was built, and gradually the travel changed and year after year these once splendid pikes were more and more neglected until it was almost impossible to negotiate them in certain seasons of the year. Social intercourse between neighbors was lessened, churches and schools were neglected, fences and barns showed signs of decay and dilapidation. The two States were losing millions annually in depreciation and falling off in taxable values.

A new awakening set in, however, and the people, and there are no better in the whole world, living along these routes between Louisville and Nashville, saw the error and folly of this wilful waste and began to hammer good roads into the minds of every inhabitant of the two States. The Nashville Automobile Club, the Louisville Automobile Club, the Nashville Board of Trade and the Louisville Chamber of Commerce took cognizance of the conditions and set the machinery in motion to resurface the old roads.

Both of these roads begin at Louisville, the one going via Westpoint, Elizabethtown, Munfordville, Horse Cave, Cave City, Bowling Green, Franklin, Whitehouse, Goodlettsville and to Nashville, while the other was via Mt. Washington, Bardstown, New Haven, Hodgenville, Bearwaller, Glasgow, Scottsville, Gallatin and to Nashville. In building these two routes, the Tennessee portion of them are in good condition, but 65 to 70 miles of Kentucky road must be built. The building will consist chiefly of resurfacing the old road. To do this only requires that the material be prepared on the road side, where it is found in great abundance, and shoveled to the road. Men, money and mules is all that is required in addition to this material, and all of these are there willing to be used for the good of the State.

At meetings recently held in Elizabethtown, Bardstown, Bowling Green, Franklin, Gallatin and Glasgow large delegations have come from the various counties to lend inspiration to the meetings. Money in large sums has been pledged for use in this great work. At one meeting a gentleman arose and said he would give one

dollar for each acre of land he owned, and when pressed for the number of acres said he had 2300. When applauded, as he should have been, he said he was not doing that for public praise, but as a business investment, as he firmly believed that each dollar spent would yield ten dollars. A business investment in road building is the way the people of Kentucky are looking at the matter.

One week in August will be set aside as "Road-building Week," and these two routes from Louisville to Nashville will be built. Every man living in close enough proximity to these routes will be asked to work one week, and from present indication only physical infirmities will prevent the entire male population from accepting the invitation. This is a great movement, and one which, if carried to a successful completion, will add millions to the coffers of the two States.

Nashville, Tenn.

WEEK'S HIGHWAY RECORD.

Progress in Southern Road and Street Improvement.

[Full details of highway undertakings are given in the Construction Department.]

Bonds Voted.

Bay St. Louis, Miss.—Hancock county issued \$25,000 of bonds for road improvements.

Hamlet, N. C.—Town voted \$5000 bond issue for street improvements.

Marion, Va.—Rich Valley District of Smyth county voted \$100,000 of bonds for road construction.

Mobile, Ala.—City will issue \$25,000 to complete sidewalks and pave districts.

Quitman, Tex.—Wood county voted \$30,000 of bonds for road improvements.

Sterling City, Tex.—Sterling county voted \$16,000 bond issue for road construction.

Bonds to Be Voted.

Brady, Tex.—McCulloch county will vote on about \$100,000 bond issue for road improvements.

Gonzales, Tex.—Gonzales county contemplates voting on \$150,000 bond issue for road construction.

Huntington, W. Va.—Cabell county will vote May 27 on issuance of \$300,000 of bonds to improve main county roads with asphalt, brick, granite rock, macadam or other materials.

Lynchburg, Va.—City is considering \$600,000 bond issue; \$150,000 to \$200,000 for reinforced bridge over James River and balance for street improvements.

Marietta, Ga.—Cobb county will petition Legislature for authority to vote on \$300,000 bond issue for road improvements.

Marion, Ala.—Perry county votes June 19 on issuing \$100,000 of bonds for road construction.

Miami, Fla.—City contemplates voting on \$125,000 bond issue for streets, sewers, parks, docks, etc.

Richmond, Va.—Street Committee approved issue of \$1,000,000 of bonds for street improvements.

Ronconverte, W. Va.—City will vote on \$10,000 bond issue for paving Railroad Ave. and several cross streets with brick.

St. Petersburg, Fla.—City will vote June 13 on \$5000 bond issue for street crossings and \$35,000 for extension of brick paving.

Contracts Awarded.

Atlanta, Ga.—City awarded contract at \$2.65 per square yard to pave about

8250 square yards of North Boulevard with wood block.

Chattanooga, Tenn.—City awarded contract at \$93,172.16 to pave a number of roadways with asphalt macadam.

Collins, Miss.—Covington county awarded contract at about \$9400 to construct 18 miles of road.

Kansas City, Mo.—Park Commissioners awarded contract to grade 40th street between Kenwood avenue and Holmes street.

Portsmouth, Va.—City awarded contract at about \$136,000 for bitulithic paving.

Portsmouth, Va.—Government awarded contract at about \$25,000 for brick paving, concrete curbing, granolithic sidewalks, etc., in Navy-Yard.

Contracts to Be Awarded.

Augusta, Ga.—City contemplates constructing cement sidewalks.

Columbus, Miss.—City receives bids May 22 for constructing about 6000 feet concrete curb and gutter or granite curb and concrete gutter.

Estherwood, La.—City will construct 2000 feet of sidewalk.

Fort Payne, Ala.—Town receives bids May 15 for constructing certain cement sidewalks and gutters.

Frederick, Md.—City opens bids May 24 for paving about 16,000 square yards and setting about 8500 linear feet of curbing.

Gadsden, Ala.—City opened bids May 8 for constructing 253 square yards concrete sidewalk, 191 square yards concrete driveway, 2074 linear feet granite curb and 300 cubic yards grading.

Gadsden, Ala.—City will let contracts about June 8 for about 4000 feet of five-foot sidewalk.

Hugo, Okla.—City will pave business streets with creosoted pine blocks.

Jacksonville, Fla.—Duval county will ask new bids for resurfacing about 1½ miles of road.

Jonesboro, Ark.—City receives bids May 15 for grading about 70,000 cubic yards.

Lenoir, N. C.—Hibriten Park Co. contemplates construction of road from Lenoir to peak of mountain.

Little Rock, Ark.—State contemplates constructing 250-mile continuous macadam highway.

Lynchburg, Va.—City receives bids until May 17 for paving on Jefferson street.

Maysville, Ky.—Mason county opens bids May 13 for constructing road from J. B. Steers to Hill City.

Mt. Sterling, Ky.—City recommends acceptance of bids at \$1.78 per square yard for paving 12,000 square yards with vitrified blocks and concrete base.

New Albany, Miss.—Union county receives bids until May 15 for constructing 120 miles of road.

Sumter, S. C.—City will expend \$3000 to \$4000 for paving North Washington street.

Texarkana, Ark.—City will pave State Line avenue with creosoted wood blocks.

Towson, Md.—Baltimore county opens bids May 18 for grading and macadamizing about 3400 feet of Boyce avenue.

Waycross, Ga.—City will pave about two miles of streets.

Westminster, Md.—Carroll county receives bids May 15 for constructing 1.12 miles road on Black Rock road.

Texas Fisheries.

The value of Texas fishery products in 1908 was \$446,000. Oysters yielded \$167,000, with red snapper second, \$79,000; squeteakue third, \$46,000; red fish fourth, \$43,000; catfish fifth, \$26,000; sheepshead sixth, \$14,000, and pike seventh, \$11,000.

RAILROADS

[A complete record of all new railroad building in the South will be found in the Construction Department.]

FOUR NEW COAL RAILROADS.

Great Transportation and Industrial Development Under Way in Eastern Kentucky.

By the recent charter of the Levisa River Railroad Co. to build a 43-mile mineral and timber branch of the Chesapeake & Ohio Railway attention is directed to the extensive developments now under way in the eastern part of Kentucky. No less than three important railroads are in course of construction, and another will soon be, all of them for the purpose of opening up rich coal and lumber regions, two of them being branches of the Louisville & Nashville system, the others of the Chesapeake & Ohio.

The Wasioto & Black Mountain Railway was the first of these to begin construction. It is a branch of the Louisville & Nashville running from Wasioto, Ky., northeast through Bell and Harlan counties to Harlan Courthouse, and making accessible large and rich tracts of coal land, which will also yield considerable timber. The International Harvester Co. is interested here. The railroad was started by T. J. Asher & Sons of Wasioto, and the Louisville & Nashville became interested, so that the line, which is being rapidly completed, is recognized as a part of Milton H. Smith's road, which, it must be remembered, is now controlled by the Atlantic Coast Line, with which it will doubtless be connected some day.

Next the Louisville road acquired the Lexington & Eastern, a line running from Lexington to Jackson, the county-seat of Breathitt county, and last year the construction of a 90-mile extension from Jackson to coal lands in Letcher county was begun. This is a heavy piece of work, and while the contract was divided into sections of about 16 miles each, some of which were sublet, it will require considerable time to finish because of the rough and difficult nature of the country through which the route is located. About the time that the Louisville & Nashville made public its plans to extend the Lexington & Eastern the Consolidation Coal Co. of Baltimore announced its acquisition of 100,000 acres of coal land not far from the contemplated eastern terminus of the extension from Jackson and in the vicinity of Potters Gap, simultaneously declaring its intention to build a railroad into the region, connecting it at the mouth of Shelby Creek with the Big Sandy branch of the Chesapeake & Ohio Railway. This coal line, called the Sardy Valley & Elkhorn, follows Shelby Creek southwest to Potters Gap, and from there it is a comparatively short distance to the coal seams. The line is to be about 28 miles long. Construction began this spring.

Next, and last of the four plans, is the Levisa River Railroad. As its name indicates, the route follows the Levisa Fork of the Big Sandy River from its mouth in Kentucky, where it connects with the Big Sandy division, to the town of Grundy, the county-seat of Buchanan county, Virginia, a county, by the way, which is now without railroad facilities. Officers of the Chesapeake & Ohio are the incorporators of this proposed new road, on which, it is anticipated, construction will be started this year, although an official the other day said that he could not say when work would begin.

This latter line is especially interesting, because it crosses the mountains on the borders of Kentucky and Virginia only a few miles north of the Breaks of the Big

Sandy, a pass through which it has long been understood that a connection between the Clinchfield road and the Chesapeake & Ohio would be built.

But the railroad development is only part of the great industrial expansion under way in the eastern part of the Bluegrass State. The Consolidation Coal Co. will build a town of considerable size, develop its great coal property and build many coke ovens, while other coal corporations in the different sections reached by the new lines here mentioned are vigorously at work doing the same thing. In addition to such developments there will be established sawmills, tramroads, etc., for gathering the product of the forests; in fact, a whole region hitherto undeveloped is suddenly waking into tremendous activity.

More interest in the great coal development was recently aroused by announcement that the Continental Coal Corporation had effected a merger of several companies in the Bell county coal region, a consolidation which, it is asserted, represents about \$3,000,000. The companies, it is further said, will have a yearly aggregate output of about 1,500,000 tons. The Interstate Coal Co. in Knox county, is also described as expanding its realm of effort, acquiring additional properties and erecting new machinery for operating.

Coupled with these railroad and coal developments comes the further anticipation that the Chesapeake & Ohio Railroad will build a second track all along its Big Sandy line in two years; also that it will bridge the Ohio at the northern end of this line and construct or otherwise acquire a route to the Lakes via either the Hocking Valley and Toledo and Ohio Central or some other road, and perhaps both.

There never was a time when railroad building to develop Southern coal territory was more brisk than it is now. The construction of the Clinchfield and the Virginian roads were big pieces of work, it is true, but they were principally designed to make new routes from coal fields to seaports or other points of delivery; the work now going on is to get at the mineral riches themselves. The main roads which will take them to market are in existence.

HOUSTON'S STREET CARS.

Extensive Betterments by the Company, Including Preparation for an Interurban.

[Special Cor. Manufacturers Record.]

Houston, Tex., April 24.

The Houston Electric Co., owning and operating the street railway system of Houston, has 54 miles of track, between 600 and 700 employees and 193 cars. Recently it put in operation a 6½-mile extension, composed of two and one-half miles of its own track to the Bellaire Boulevard, and four miles of track owned by the Westmoreland Railroad Co., running from Fannin street extended and Bellaire Boulevard to the townsite of Bellaire.

There is under construction a new extension two and one-half miles long, which will be operated in about six weeks. This is the Leeland avenue extension. Next the construction forces will go to that part of Washington avenue beyond the Southern Pacific Railway crossing to the Heights Boulevard, where approximately \$35,000 of heavy track will be built on a concrete base in a street to be paved with vitrified brick. Altogether within the last two years there will then have been expended on Washington avenue more than \$125,000. Construction of the line on Washington avenue will be continued to the end of the present line in the township of Brunner, 45-pound rail being replaced with 70-pound rail on stone ballast. The heavier rail will also be laid

in place of light on San Felipe street, between Wilson and Smith streets.

Two large and difficult special work layouts in the business district will be overhauled at a cost of about \$15,000, one at Travis and Franklin streets and the other at Main and Prairie streets. Sidings will also be built on the Woodland Heights and Louisiana lines.

By far the greatest work during the year will be the preparation of the city system for the entrance of the Galveston-Houston Electric Railway Co.'s cars. Over \$200,000 will be spent for this purpose, of which \$100,000 will be for improving the terminal layout on the block bounded by Smith and Brazos streets and Capitol and Texas avenues. The structures here will be of the latest interurban terminal type. Here will be located the operating forces and the dispatching system, and all the express and baggage will be received. During the erection of this building the track forces will lay from the city limits via Pierce avenue the La Branch line and Texas avenue to the terminal the most modern pattern of interurban line. The cars to operate over this will weigh approximately 50 tons, and the track will be made of a type best adapted for high-speed interurban service.

By June 1 the Houston Electric Co. will occupy its new office building on Texas avenue near the corner of Main and Texas streets. The present building on this site will be remodeled into a modern office structure, and on its completion will contain the offices of all the forces of the interurban as well as the local forces. A large and commodious waiting-room will be provided on the lower floor, with information bureau, resting chairs, ticket offices, etc., within easy access. The large interurban trains, after leaving the terminal at block 64, will stop for travelers at this point, which is in the heart of the business district. CHAS. E. TRIMBLE.

LARGE ELECTRIC CONTRACT.

Westinghouse Company Will Furnish Motors and Locomotives on Piedmont Road.

[Special Cor. Manufacturers Record.]

Charlotte, N. C., May 9.

A contract approximating \$300,000 and covering practically the entire electrical equipment necessary for the interurban electric railway between Charlotte and Kings Mountain, N. C.; Spartanburg and Greenwood, S. C., has been awarded by the Piedmont Syndicate, through W. S. Lee of the Southern Power Co., to the Westinghouse Electric & Manufacturing Co. of Pittsburgh.

This is in all probability one of the largest contracts ever given for electric railway equipment in the South, and includes 10 motor generator sets, 23 electric passenger car equipments and 14 electric locomotives for handling of freight, etc.

The motor generator sets are to be located at proper distances along the route from Charlotte to Kings Mountain, N. C., and from Spartanburg to Greenwood, S. C. The passenger car equipments include trolleys, and may be operated with trailers or singly, and are equipped with motors either singly or in series. The cars will be 60 feet long, divided into compartments for white and colored passengers. They will in all probability also have compartments for baggage. Each car will seat from 50 to 60 passengers. Any length train desired may be made up, using these cars for motive power and adding as many trailers of the regular passenger-car type as may be needed.

The electric locomotives, which are to be used chiefly for hauling freight, will weigh 55 tons, and will use a 1500-volt direct current, each axle being equipped with an independent geared motor, four motors to

each locomotive. The motor weight is carried partly on the axle bearings and the remainder supported by a nose which rests directly on the truck bolster, the draw-bar pull being transmitted through the cab underframing, the cab itself being arranged for double-ended operation, and the full height of the cab extends over the central part of the engine, with a sloping hood fitted at each end. The frames are of cast steel outside of the wheels, with axles of forged steel; the brakes are pneumatically operated, but may also be controlled by hand. Brake shoes are on all wheels. The couplers are M. B. C. automatic, fitted in bumper pockets.

The motor frames are of the box type, cast in one piece, with large openings at each end through which the armature may be removed endwise. A large opening over the commutator, provided with a ventilated cover, gives access to the brushes, which by means of interpoles, sparking and flashing are practically eliminated. The system of control is very complete.

The trailing load that each of these locomotives can handle with ease is over 800 tons, but as two or more of them may be connected to give required power, trains of considerable weight and length may be operated. From Greenwood to Spartanburg, S. C., will be the longest continuous run, 92 miles on a maximum grade of 1 per cent., the greatest continuous length of this grade being about 8000 feet, and on the section of line between Kings Mountain and Mt. Holly, N. C., a grade of .3 per cent. is met with for 23 miles, and the maximum curve is 650 feet on the main line.

J. LOUIS SPENCER.

BURGRAHAW PLAN REVIVED.

Piedmont Railway & Electric Co. Will Complete the Property and Build Extension.

The Piedmont Railway & Electric Co. has been chartered in North Carolina, with headquarters at Burlington and capital of \$1,000,000, to build and operate a system of electric lines connecting Burlington, Graham, Haw River, Hopedale, Carolina and Glenco, with local service for them and other points within 50 miles of Burlington and Guilford and Alamance counties. It will also conduct a general electric business and is authorized to maintain parks and places of amusement. J. M. Cook, E. S. Parker, Jr., and A. L. Davis are mentioned as the incorporators.

A dispatch from Burlington indicates that this charter, which is reported from Raleigh, is the result of efforts by J. W. Murray of Burlington, who purchased the property of the Burgrahaw Traction Co. several months ago, and who has been since working upon a plan to complete the projected railway to connect Burlington, Graham and Haw River. It is said that Northern capital has become interested in the proposition, and that work will be resumed upon the line by July. One of the incorporators says that contract is let.

ATLANTA & CAROLINA.

Construction to Begin Now on 38 Miles of a Line Long Planned.

A letter from Atlanta says that work will begin immediately on the construction of the Atlanta & Carolina Railway from Atlanta to Conyers, Ga., 38 miles, contract for which was recently let, as previously reported, to Adams & Sturm of Columbus, O. It is understood that considerable of the work has been subtler, not only for grading, but for the erection of trestles and laying of track. The entire line projected is from Atlanta to Augusta, Ga., 207 miles. It will be a standard-gauge road, and may be operated by steam, although it is expected that electricity will be the motive power. Mat-

thew Mason of Atlanta is president and chief engineer.

A press report says that 600 Italian laborers from Illinois will begin the work at a point about three miles out of Atlanta.

CARY NORTH & SOUTH.

A 50-Mile Line Projected from Hawkinsville to Gordon, Ga.—Survey Started.

President H. R. Brown of the Cary North & South Railroad Co., recently chartered in Georgia, sends from Macon, where he resides, the following information concerning the enterprise:

This railroad is entirely a local affair, projected this year. The charter was granted April 20, the company organized April 22 and the engineer began work April 24. It is expected to have 15 miles surveyed this month, the right of way cleared and grubbed by July 1, and the roadbed graded by October 15.

The proposed route is from Hawkinsville to Gordon, Ga., an estimated distance of 50 miles, via Cochran, Cary and Danville. The line is practically level, about one-half through lands under cultivation and the rest timbered. It is not yet decided when bids for construction and equipment will be received. Connection will be made with the Southern Railway at Cochran; the Central of Georgia at Gordon, and the Macon, Dublin & Savannah at Danville.

The people along the route give the right of way and subscribe and pay for the capital stock of \$100,000 at the rate of \$2000 per mile. The road will be completed and equipped by the issue of \$500,000 of 30-year 6 per cent. gold bonds limited to \$10,000 per mile. Mr. Brown says that it will easily originate new traffic enough to earn net over 6 per cent. on the cost. The following board of directors will be added to from points along the line:

H. R. Brown of Macon, Ga., president; H. F. Armstrong, vice-president; Frank Wade, treasurer; J. B. King, secretary, both of Cary; D. B. Dunn of Macon, engineer; W. L. Jameson, S. L. Richardson, W. D. Porter, B. F. Abney and George H. Wade, all of Cary, Ga.

GIVES \$50,000 FOR RAILROAD.

Saluda, S. C., Completes Bonus by Voting \$10,000 of Town Bonds.

A letter from a town official confirms report that Saluda, S. C., has voted \$10,000 of 7 per cent. bonds in aid of the Augusta Northern Railroad, which is being built by W. J. Montgomery of Marion, S. C., and others, he being president. It is further stated that Saluda agreed to give \$50,000 bonus to secure the road, which will be 12 miles long, from Ward, on the Southern Railway, and that after \$39,000 in subscriptions was raised the railroad company agreed to accept \$10,000 of bonds in lieu of the balance of \$11,000 of subscriptions. The securities were voted unanimously, and they will be issued upon the completion of the line to Saluda. The local committee consisted of B. W. Crouch, chairman; G. C. Wheeler, Dr. J. W. Pitts, W. L. Daniel, E. W. Able, C. J. Ramage and B. F. Forrest, all of Saluda.

New Equipment, Rails, Etc.

The Missouri, Kansas & Texas Railway has ordered nine locomotives from the Baldwin Works, Philadelphia, and seven from the American Locomotive Co., New York. The former are switchers and latter Pacific-type passenger engines.

The Seaboard Air Line's rail contract is reported divided thus: United States Steel Corporation 8800 tons, which will be rolled at Ensley, Ala.; Bethlehem Steel Co. 4000 tons, at Bethlehem, Pa.; Mary-

land Steel Co. 3738 tons, at Sparrows Point, Md.

The Seaboard's equipment contracts were distributed thus: 10 consolidation and 5 switching locomotives to the Baldwin Works; 10 Pacific passenger locomotives to the American Locomotive Co.; 1000 box cars, 200 phosphate cars and 30 cabooses to the Pressed Steel Car Co. of Pittsburg; 9 passenger train cars to the Pullman Company, Chicago.

The Maryland Steel Co. will roll 3000 tons of rails for the Missouri, Kansas & Texas Railway, and it is understood that the same line has also given a contract for 6000 tons to the Illinois Steel Co., Chicago, although as this is a United States Steel Corporation order it may be in part, at least, handled at another plant.

The Pennsylvania Railroad, says a market report, will build 77 locomotives and 81 steel cars at its Altoona shops.

The Piedmont Traction Co., Charlotte, N. C., as reported in another column, has ordered its electrical equipment, including locomotives, from the Westinghouse Electric & Manufacturing Co. of Pittsburg.

The Baltimore & Ohio Railroad has ordered 2500 tons of rails from the Maryland Steel Co., Sparrows Point, Md., and 5000 tons from the Carnegie Steel Co., Pittsburg.

The Florida East Coast's order for 14,000 tons of rails will, says a market report, be rolled at the mills of the Maryland Steel Co., a subsidiary of the Pennsylvania Steel Co., to which the contract was previously reported let.

The Laurinburg & Southern Railway is reported to have ordered a 10-wheel locomotive from Baldwin's.

The Northern Texas Traction Co., says a market report, has ordered four inter-urban motor cars from the St. Louis Car Co.

The Norfolk & Western Railways' order for engines to be built at its own shops will, it is said, consist of 12 Mikado locomotives with 24x30-inch cylinders and 56-inch drivers.

The Baltimore & Ohio is reported in the market for about 1600 tons of bridge steel.

The Houston (Tex.) Electric Co. is reported to have ordered 10 single-end trailer and 5 single-end motor cars from the St. Louis Car Co.

The Louisville & Nashville Railroad, according to dispatches from Pittsburg, is getting prices for a very large rail order (100,000 tons, it is reported) for autumn delivery.

M. R. Hemphill, Haskell, Tex., who is promoting a railroad from there to Rule, 12 miles, writes that he will want a small locomotive with four drivers, 56-pound rails, and ties, besides some box cars and one baggage and mail car.

Lines Recently Chartered.

Among the new railroad enterprises recently reported are the following:

Washington & Old Dominion Railway Co. applied for charter in Virginia to build a line about 90 miles long between Washington, D. C., and Winchester, Va., through Alexandria, Fairfax, Loudoun, Clarke and Frederick counties; capital not less than \$1,000,000 and not more than \$2,000,000; directors, Charles M. Hendley, president; W. B. Emmert, vice-president; George Howard, treasurer; Charles E. Howe, secretary, and Hugh A. Thrift, all of Washington; George R. Willis and Francis T. Homer of Baltimore. J. Garret Pollard is attorney.

Gilmer & Parkersburg Railroad Co. chartered in West Virginia to construct a line about 60 miles long from Burnsville via Glenville to Parkersburg, all in that State. Glenville, which is about 15 miles from Burnsville, will be the headquarters,

and the incorporators include S. A. Hays of Glenville, C. M. Bennett, R. F. Kidd, Robert L. Ruddell and D. W. O'Brien. The route from Burnsville to Glenville will probably be along the Little Kanawha River, which is very direct between those points. It will cross Gilmer and Calhoun counties, which are now without railroad lines. Grantsville and Elizabeth are among the towns which might be reached by a railroad built to connect the terminal points contemplated by the promoters.

Grafton, Fairmont & Clarksburg Railway Co. chartered in West Virginia to build a line connecting the three places, about 30 miles; headquarters at Grafton, W. Va.; capital \$500,000; incorporators, G. F. Humphreys, A. B. Corder, Bridgeport, W. Va.; Arthur Staley, Austin C. Merrill, H. P. Keenan, Fairmont; Charles F. Sutherland, Morgantown; C. Lee Reynolds, Flemington, W. Va.; J. M. Roberts, Morris W. Head, John G. Leasure, Chas. G. Benton, Pittsburg; William Straub, New Kensington, Pa.

Barnesville Railroad Co. of Barnesville, Ga., has applied for a charter to build a line about six and one-quarter miles long from there to near Piedmont, Ga. The incorporators are T. W. Cochran, R. A. Stafford, A. Peacock, W. H. Mitchell, William Wakefield, J. W. Garland, H. H. Gray, L. A. Collier, W. C. Jordan and V. O. Marshburn.

Lillington to Sanford.

[Special Cor. Manufacturers Record.]

Raleigh, N. C., May 8.

John A. Mills, president of the Raleigh & Southport Railway, operating between Raleigh and Fayetteville, 62 miles, has completed arrangements for building a standard-gauge branch from Lillington to Sanford, 25 miles, and within 10 days grading will begin. The new road will traverse the Sandhill country which has become so valuable for fruit and berry growing, as well as for other crops. Most of the timber on the route has been cut. The Durham & Charlotte Railway is building into Sanford, which is already reached by the Seaboard Air Line and the Atlantic Coast Line, and which is connected with Jonesboro as a twin town, the two forming the county-seat of Lee county. The Raleigh & Southport Railway is friendly with both the Atlantic Coast Line and the Norfolk & Southern, and thus gives both of them entrance into new territory. President Mills is assembling men and materials to begin the construction. Lillington is about midway between Raleigh and Fayetteville, and is on the Cape Fear River.

FRED. A. OLDS.

Organizing to Build a Railway.

The W. J. Oliver Company, which was recently chartered in North Carolina, has organized at Salisbury, in that State, for the purpose of operating the Salisbury-Spencer Railway and the Park Railway, besides the street railway in Concord, N. C., all of which recently changed hands, as previously noted. The company will also build the electric railway, 22 miles long, that is to connect Salisbury and Concord. This line will be built by Mr. Oliver, whose headquarters are at Knoxville, Tenn., and who is president of the company. The other officials are John M. Beall of St. Louis, secretary, and T. J. Jerome of Salisbury, treasurer. The capital is \$400,000. Another meeting will soon be held to perfect plans for beginning construction.

New Line Out of Fort Worth.

J. J. Jermyn of Scranton, Pa., president of the Gulf, Texas & Western Railway, which extends from Jacksboro, Tex., to Seymour, Tex., 75 miles, is reported to

have made an offer to residents of Fort Worth to build an extension southeast from Jacksboro to that city, about 60 miles, provided a subscription is made to \$250,000 of the road's bonds. The offer, it is said, was made to William Capps, chairman of a local committee, which has under consideration plans to build a railroad from Fort Worth northwest via Jacksboro with funds that have been subscribed. It is intimated that there will be a new company formed, and that outside capital will be interested. It is proposed to have the line reach Mineral Wells, Stamford and other points in the western part of Texas.

A Short Route to Fort Worth.

An official writes that the Glen Rose & Walnut Springs Railway Co. has completed surveys for its proposed line from Glen Rose to Fort Worth, Tex., and arrangements have been made with Eastern capitalists to finance the construction and equipment of the line from Walnut Springs, on the Texas Central Railroad, via Glen Rose to Fort Worth, 58 miles, as compared with 152 miles by way of existing routes. Active construction is to begin within 60 days.

He further says that the road is assured of a large amount of thorough traffic; it will be a line of long tangents and a maximum grade of less than 1 per cent. It opens up a region of great fertility, producing cotton, corn and other grain. Property-owners along the route have extended liberal support in the way of rights of way and bonuses. The line will have adequate and valuable terminal facilities in Fort Worth.

More Railroad Telephones.

Soon the Missouri, Kansas & Texas Railroad will be using telephones to dispatch trains on its Fort Worth and Dallas divisions. An order has just been placed with the Western Electric Co. for 49 selector and telephone equipments. The Dallas division is from Denison to Hillsboro, Tex., via Dallas, 172 miles, with a branch of 22 miles from Dallas to Lewisville. The Fort Worth division is from Denison to Hillsboro, 152 miles, with a branch of nine miles from Egan to Cleburne.

The Chicago, Burlington & Quincy Railroad has also just placed an order with the same electric company for telephone equipment on its St. Joseph division, between Kansas City and Napier, Mo., 96 miles. When this is installed the Chicago, Burlington & Quincy will be operating over 2700 miles with telephones.

B. & O. Statement.

The Baltimore & Ohio Railroad Co.'s statement of earnings and expenses (exclusive of outside operations) for the month of March, 1911, as compared with March, 1910, shows gross earnings, 1911, \$6,953,914; 1910, \$7,813,396; decrease, \$859,482. Expenses, 1911, \$4,744,135; 1910, \$5,118,153; decrease, \$374,018. Net earnings, 1911, \$2,209,790; 1910, \$2,695,213; decrease, \$485,434.

For the nine months of the fiscal year as compared with the corresponding period of 1910 the statement shows gross earnings, 1911, \$66,277,040; 1910, \$65,692,947; increase, \$584,093. Expenses, 1911, \$48,008,788; 1910, \$44,914,526; increase, \$3,184,262. Net earnings, 1911, \$18,178,252; 1910, \$20,778,421; decrease, \$2,600,169.

Tidewater Power Improvements.

The Tidewater Power Co., which controls and operates public utilities at Wilmington, N. C., has purchased a new 400-horse-power Babcock & Wilcox boiler, and an order for a rotary has also been placed to provide more current. An addition was

made to the power-house to accommodate the new machinery. The company is also building several new cars at its shops in Wilmington to assist in handling the summer traffic to the beach. At Lumina 200 bathrooms have been added, making a total of about 400. The large pavilion has been renovated and improved. The gas plant is also being improved, and some additional pipes will be laid. Hugh McRae is president and A. B. Skelding general manager.

Secona Valley & Southeastern.

Concerning the charter of the Secona Valley & Southeastern Railroad Co. in Mississippi recently one of the interested parties writes that about two years ago the West Point & Houston Railroad Co. was organized to connect West Point and Houston, Miss., but under the State Constitution neither town could extend any aid to the enterprise. However, if the line ran through those towns or any others any or all of them could subscribe for local facilities and right of way. This has caused the change of name and the enlargement of the plan to build from the Tombigbee River east of West Point to the Secona River west of Houston via those two points and others. The western terminal will be in a heavily-timbered region that is expected to furnish considerable traffic. As soon as the new charter is recorded the company will be reorganized. Meanwhile L. T. Carlisle, who promoted the line, will give information to any persons who may be interested. It is estimated that the road will be successful from the time of beginning operations.

A letter from San Antonio, Tex., says that A. R. Ponder, vice-president and general manager of the Crystal City & Uvalde Railroad, with N. E. Leming, purchasing agent, is arranging for an extension east from Gardendale to Dulls, Tex., about 25 miles, and that such a line would traverse a section of country rich for agricultural purposes, but which now lacks railroad facilities that would make it available for settlers.

To Rebuild Edge-Dowling Plant.

The Edge-Dowling Lumber Co. of Taylorsville, Fla., will rebuild its recently-burned plant, investing about \$100,000 for the new buildings, machinery, etc. Its sawmill will include circular saw with gang and edger for a daily capacity of 50,000 feet of lumber. This machinery has been purchased near Taylorsville. The planing mill will have a daily capacity of 25,000 feet of lumber, and its machinery has been purchased from the American Woodworking Machinery Co. of New York. This planing machinery will include fast-feed flooring machine, molder, band resaw, edger and heavy timber sizer. E. E. Edge is president and R. L. Dowling is vice-president-treasurer of the Edge-Dowling Lumber Co.

Wants Manufacturers.

Gainesville, Ga., May 1.

Editor Manufacturers Record:

I am trying to figure out some plan by which I can secure and interest parties that are engaged in the manufacturing business to locate here in Gainesville.

We have plenty of timber of practically all descriptions, one of the best electric plants and good railroad facilities. In fact, we have almost the same advantage any other place can have, except we have not the number of railroads that others have.

J. H. REYNOLDS.

It is estimated that berry shipments this season from the Evansville district, near Chattanooga, Tenn., will have a total value of \$1,000,000.

LUMBER

[A complete record of new mills and building operations in the South will be found in the Construction Department.]

TURPENTINE AND ROSIN IN 1910.

Substantial Increase in Value of Products Over 1909.

Washington, D. C., May 9.

The crop yield of spirits of turpentine in the calendar year 1910 amounted to 555,000 casks, as compared with 580,000 in 1909, a reduction of 4 per cent. The production of rosin amounted to 1,906,000 barrels, each weighing 500 pounds, in 1910, as compared with 1,828,000 barrels in 1909, an increase of 4 per cent.

The value of turpentine was \$17,680,000 in 1910, as compared with \$12,654,000 in 1909, an increase of 40 per cent.

The value of the rosin production was \$18,255,000 in 1910 and \$12,577,000 in 1909, an increase of 45 per cent.

The average price of turpentine was \$31.86 per cask in 1910, as compared with \$21.82 in 1909, an increase of 46 per cent.

The average price of rosin, including all grades, was \$9.58 per barrel of 500 pounds in 1910, as compared with \$6.88 per barrel in 1909, an increase of 40 per cent.

These figures are from a preliminary statement issued today by the Census Bureau, showing the quantity and value of turpentine and rosin manufactured in the United States during the calendar year 1910. It contains comparative summaries of the production and value of turpentine and rosin, distributed by States, for 1910 and 1909, and also the quantity and value of spirits of turpentine and rosin produced and exported in 1910 and 1909. The statistics refer not to what is termed the "naval-stores year," which ends March 31.

In the turpentine industry the largest relative decrease, amounting to 32 per cent., was sustained in the Carolinas, the oldest producing territory. Georgia showed a reduction of 14 per cent., Alabama 18 per cent. and Louisiana 34 per cent. Florida, which ranks first, showed a gain of 8 per cent., and Mississippi a gain of 9 per cent. in value of production.

In the manufacture of rosin the largest relative decrease in total product, amounting to 51 per cent., occurred in Louisiana, although the decrease in value was only 34 per cent. North and South Carolina lost 17 per cent. in quantity, but gained 14 per cent. in value. Georgia's production decreased 4 per cent., but the value gained 37 per cent. Florida, the largest producer, gained 17 per cent. in quantity and 60 per cent. in value. Alabama's quantity was the same in both years, but the increase in value was 38 per cent. in 1910. Mississippi increased its production in 1910 by 10 per cent., but the value rose 62 per cent.

The seeming disparity in the conditions between Louisiana and Mississippi is due probably to the fact that the turpentine interests of southern Mississippi and eastern Louisiana are interwoven so closely that State lines were not strictly regarded by factors and others in making their returns to the Census Bureau.

The decreased production shown in Louisiana was not due to the depleted conditions of the forests, but was caused probably by the arbitrary reduction or temporary cessation of turpentine operations by some of the large timber-owning companies who usually "work" the timber before cutting it.

The general decrease in turpentine production in 1910, as compared with 1909, is attributed to three principal causes—(1) depletion of forests in older localities

and arbitrary reduction of operations in parts of newer territory; (2) unfavorable weather conditions for production, and (3) inability of operators to get sufficient labor to work the crops.

It should be noted that the products marketed in the first three months of the year are comparatively small. After April 1 they are referred to as the "old crop." An old crop is liable to vary more in value than in quantity; the difference in prices between products of the two periods sometimes is large. For instance, the "old crop" in 1909 averaged about 40 cents per gallon, while in 1910 it averaged about 60 cents.

Further details can be drawn from the following table, distributing the quantity and value of spirits of turpentine and rosin by States, in 1910 and 1909:

| State. | Year. | Turpentine. | | Rosin. | |
|-------------------------------|-------|---------------------|--------------|-----------------------|--------------|
| | | Casks (50 gallons). | Value. | Barrels (500 pounds). | Value. |
| Alabama..... | 1910 | 47,000 | \$1,515,000 | 173,000 | \$1,674,000 |
| | 1909 | 57,000 | 1,254,000 | 173,000 | 1,214,000 |
| Florida..... | 1910 | 298,000 | 9,454,000 | 1,018,000 | 9,714,000 |
| | 1909 | 276,000 | 5,847,000 | 871,000 | 6,068,000 |
| Georgia..... | 1910 | 139,000 | 4,509,000 | 487,000 | 4,637,000 |
| | 1909 | 161,000 | 3,557,000 | 596,000 | 3,372,000 |
| Louisiana..... | 1910 | 19,000 | 582,000 | 46,000 | 455,000 |
| | 1909 | 29,000 | 689,000 | 94,000 | 690,000 |
| Mississippi..... | 1910 | 35,000 | 1,088,000 | 119,000 | 1,199,000 |
| | 1909 | 32,000 | 732,000 | 108,000 | 740,000 |
| North and South Carolina..... | 1910 | 17,000 | 532,000 | 63,000 | 575,000 |
| | 1909 | 25,000 | 575,000 | 76,000 | 568,000 |
| United States..... | 1910 | 555,000 | \$17,680,000 | 1,906,000 | \$18,255,000 |
| | 1909 | 580,000 | 12,654,000 | 1,828,000 | 12,577,000 |

*Includes Texas.

NOTE.—The common unit of measure in turpentine is the "cask," which contains approximately 50 gallons; in rosin, the "barrel," weighing approximately 500 pounds. In the report for 1909 the products were reported, turpentine in gallons and rosin in commercial barrels (280 pounds). For comparative purposes the quantities for both years have been reduced to casks and 500-pound barrels.

The exports of turpentine products were greater than the domestic consumption in 1909 and 1910, as will be seen in the following comparative table:

| Kind. | Year. | Production. | | Exports.* | |
|--|-------|-------------|--------------|-----------|-------------|
| | | Quantity. | Value. | Quantity. | Value. |
| Spirits of turpentine (casks of 50 gallons) .. | 1910 | 555,000 | \$17,680,000 | 285,046 | \$9,627,428 |
| | 1909 | 580,000 | 12,654,000 | 321,236 | 7,779,728 |
| Rosin (barrels of 500 pounds)..... | 1910 | 1,906,000 | 18,255,000 | 1,270,830 | 12,373,825 |
| | 1909 | 1,828,000 | 12,577,000 | 1,111,334 | 8,211,650 |

*Compiled from the reports of the Bureau of Statistics.

NOTE.—The Bureau of Statistics reports spirits of turpentine in gallons and rosin in commercial barrels (280 pounds). For comparative purposes the census statistics of turpentine have been reduced to casks of 50 gallons and rosin to barrels of 500 pounds. The statistics of exports are for the same calendar years as the statistics of production, therefore the exports for 1909 represent a part of the crops for 1908 and 1909. The same rule applies to the 1910 exports. As the foreign movement of naval stores is rapid, the statistics of exports for a given year may be safely compared with the exports for the same year.

The most prosperous period of the industry during the past decade was from 1903 to 1907. During these years there was a ready demand for the products, especially spirits of turpentine, at remunerative prices. Encouraged by the prevailing prosperity, new territory was exploited and timber land became enhanced in value. The largest crop recorded, amounting to 731,000 casks, was in 1908. This proved, however, to be an overproduction and, owing to the curtailed demand for raw materials following the adverse financial conditions in 1907, the price of turpentine decreased, averaging about 40 cents per gallon during the year, the lowest obtained for several years.

The value of rosin in 1908 showed an advance over that of previous years. The varied and increasing uses of rosin in industrial lines is no doubt one of the important causes of its steady advance in value. It is now used extensively in the manufacture of soap, paper, oilcloth, linoleum, sealing wax, flypaper, ink, roofing materials, brewers' pitch, electric wiring, lubricating compounds, medicinal preparations, etc.

So acute have become the conditions in the "naval-stores" industry through the increasing demand for the products and the gradually diminishing sources of supply of the raw material that statistical investigations at the five-year census periods no longer answer the needs of the trade. The Bureau of the Census has, in deference to a well-defined demand for the most recent data regarding the industry, instituted an annual inquiry. The data are collected from naval-stores "factors," who are the middlemen between producers and buyers from jobbers, and a few manufac-

turers who sell their products direct to consumers.

The present investigation has developed the fact that approximately 93 per cent. of the production of turpentine and rosin is sold through about 25 factorage houses. Owing to the close financial relations between factors and producers and the system of records employed, the factors are prepared to give accurate information in regard to the annual production. It is gratifying to state that in the preparation of its statistics the Census Bureau has had the hearty co-operation of the factors, as well as the jobbers and independent dealers.

A Railroad in Forestry.

Since the beginning of its forestry operations in 1902 the Pennsylvania Rail-

road Co. has planted 4,000,524 trees. The company has about 32 acres of land at Morrisville, Pa., devoted to nursery purposes, and it is believed by the manage-

ment that the conservative lumbering and forest planting which it is conducting on its wood lots and farm lands will serve as object-lessons for farmers and provide an incentive to intelligent forest development by the public generally. The forestry operations of the company extend to all points on the lines east of Pittsburg and Erie. During last year 650 acres of idle land were set out in hardwood and evergreen seedling trees. There were 200,000 trees planted on several of the company's properties at Altoona, 49,189 in the vicinity of Mount Union, 93,700 near Martie Forge, 65,500 at Newton Hamilton, 62,249 at Petersburg, 36,100 near Middletown, 12,000 at Vineyard, 10,000 at Ryde, 27,750 at Rambo, 5000 at Conewago, 3500 at Kinzer, 17,250 at New Brunswick, N. J., and 35,100 at Parkton, Md.

Texas Lumber for Jamaica.

That Texas lumber will be used for Government construction in Jamaica is told in a dispatch from Beaumont as follows:

"W. A. Priddie and R. E. Masterson of the Beaumont Lumber Co. have returned from an extended trip to Kingston, Jamaica, where they went in the interest of the lumber company and secured a contract with the Jamaican Government for supplying 2,000,000 feet of timber and lumber, which will be used by the Jamaican Government in making an extension of the railroad which is owned by the Government."

A \$50,000 Lumber Plant.

The McLean Lumber Co. of Chattanooga telegraphs the MANUFACTURERS RECORD that it will erect a plant at an estimated cost of \$50,000 with a daily capacity of 40,000 feet of lumber. Mill building of steel and concrete, 40x110 feet, with reinforced concrete floors and metal clad on roof and sides. Contract for construction has been awarded to Converse Bridge Co. of Chattanooga. Mill machinery will include single-cutting eight-foot band mill for 12-inch saws, heavy log car-

INCREASED BUILDING OPERATIONS.

Under the heading, "Building Operations in 1909," in an advance chapter of "Mineral Resources," just issued by the United States Geological Survey, the following table shows the building activities of 51 of the larger cities in the United States in 1909 as compared with the figures for 1908:

| Building Operations in Some of the Leading Cities of the United States in 1908 and 1909. | | Cost of buildings erected. | | Gain (+) or loss (—) in 1909. | |
|--|--|----------------------------|---------------|-------------------------------|----------|
| Cities. | | 1908. | 1909. | Amount. | Per Ct. |
| Atlanta, Ga..... | | \$4,533,941 | \$5,551,951 | + \$718,010 | + 14.85 |
| Baltimore, Md..... | | 7,554,700 | 8,761,788 | + 1,207,078 | + 29.21 |
| Boston, Mass..... | | 11,335,712 | 16,756,431 | + 5,420,719 | + 48.30 |
| Brooklyn, N. Y..... | | 45,865,240 | 64,267,301 | + 18,402,061 | + 40.12 |
| Buffalo, N. Y..... | | 6,847,000 | 9,895,000 | + 3,048,000 | + 44.52 |
| Cambridge, Mass..... | | 2,153,070 | 2,249,745 | + 96,675 | + 4.49 |
| Chicago, Ill..... | | 67,234,800 | 95,238,380 | + 28,003,580 | + 41.65 |
| Cincinnati, Ohio..... | | 6,428,888 | 7,429,529 | + 1,000,641 | + 15.56 |
| Cleveland, Ohio..... | | 9,896,869 | 13,028,294 | + 3,131,425 | + 31.64 |
| Columbus, Ohio..... | | 3,400,273 | 3,598,601 | + 198,328 | + 5.83 |
| Dayton, Ohio..... | | 3,224,280 | 1,700,590 | - 1,523,780 | - 47.42 |
| Denver, Col..... | | 10,068,020 | 11,554,983 | + 1,486,963 | + 14.43 |
| Detroit, Mich..... | | 19,682,170 | 14,301,490 | - 5,380,680 | - 27.38 |
| Fall River, Mass..... | | 1,140,927 | 1,146,702 | + 5,775 | + .51 |
| Grand Rapids, Mich..... | | 2,181,759 | 2,872,427 | + 690,668 | + 31.66 |
| Hartford, Conn..... | | 3,107,348 | 3,440,925 | + 333,577 | + 10.74 |
| Indianapolis, Ind..... | | 5,895,928 | 7,156,590 | + 1,260,662 | + 21.38 |
| Jersey City, N. J..... | | 4,490,466 | 6,882,610 | + 2,392,144 | + 53.27 |
| Kansas City, Mo..... | | 1,108,472 | 1,196,390 | + 87,918 | + 7.93 |
| Kansas City, Mo..... | | 10,562,041 | 13,367,730 | + 2,805,689 | + 26.56 |
| Los Angeles, Cal..... | | 9,931,377 | 13,256,329 | + 3,324,952 | + 33.48 |
| Louisville, Ky..... | | 2,914,141 | 2,972,505 | + 58,364 | + 2.00 |
| Lowell, Mass..... | | 1,019,081 | 1,328,853 | + 309,772 | + 30.40 |
| Memphis, Tenn..... | | 3,390,598 | 4,324,377 | + 933,779 | + 27.54 |
| Milwaukee, Wis..... | | 10,065,699 | 11,841,713 | + 1,776,014 | + 17.64 |
| Minneapolis, Minn..... | | 10,065,915 | 13,092,390 | + 2,998,475 | + 29.71 |
| Nashville, Tenn..... | | 1,969,595 | 1,676,572 | - 293,023 | - 14.87 |
| Newark, N. J..... | | 7,161,668 | 14,177,159 | + 7,015,491 | + 97.96 |
| New Bedford, Mass..... | | 2,872,390 | 6,267,650 | + 3,395,260 | + 118.21 |
| New Haven, Conn..... | | 3,091,465 | 4,226,322 | + 1,134,857 | + 36.71 |
| New Orleans, La..... | | 5,744,311 | 5,165,212 | - 579,099 | - 10.08 |
| New York, N. Y..... | | 117,819,382 | 186,047,477 | + 68,228,095 | + 57.91 |
| Oakland, Cal..... | | 6,320,563 | 5,318,512 | - 1,002,051 | - 15.85 |
| Omaha, Neb..... | | 4,590,650 | 7,204,140 | + 2,613,490 | + 56.93 |
| Philadelphia, Pa..... | | 28,152,265 | 42,881,370 | + 14,729,105 | + 52.32 |
| Pittsburg, Pa..... | | 13,136,287 | 14,026,888 | + 890,601 | + 6.78 |
| Portland, Ore..... | | 10,595,151 | 13,481,389 | + 2,886,238 | + 28.33 |
| Providence, R. I..... | | 4,034,000 | 5,340,500 | + 1,306,500 | + 32.39 |
| Reading, Pa..... | | 497,740 | 1,046,900 | + 549,200 | + 110.25 |
| Richmond, Va..... | | 3,169,431 | 3,574,812 | + 405,381 | + 12.79 |
| Rochester, N. Y..... | | 4,975,317 | 9,272,132 | + 4,296,815 | + 86.36 |
| St. Joseph, Mo..... | | 1,717,723 | 2,255,759 | + 538,036 | + 31.32 |
| St. Louis, Mo..... | | 21,190,369 | 23,733,272 | + 2,542,903 | + 12.00 |
| St. Paul, Minn..... | | 7,625,338 | 12,158,354 | + 4,532,816 | + 59.44 |
| San Francisco, Cal..... | | 31,668,341 | 26,184,068 | - 5,484,273 | - 17.32 |
| Saranton, Pa..... | | 2,366,405 | 3,987,943 | + 1,621,538 | + 68.52 |
| Seattle, Wash..... | | 13,777,329 | 19,044,335 | + 5,267,006 | + 38.23 |
| Syracuse, N. Y..... | | 3,317,195 | 4,855,811 | + 1,538,616 | + 46.38 |
| Toledo, Ohio..... | | 2,081,448 | 2,014,462 | - 66,986 | - 3.22 |
| Washington, D. C..... | | 10,890,086 | 15,468,635 | + 4,578,549 | + 42.22 |
| Worcester, Mass..... | | 2,286,261 | 4,314,435 | + 2,028,174 | + 88.71 |
| Total..... | | \$366,165,404 | \$771,937,564 | + \$206,772,160 | + 36.34 |

riage with steam set works, 12-inch shotgun feed, extra heavy 60-inch gang edger, heavy drop-saw trimmer, hog for grinding edgings, with slasher, transfers, live rolls, etc. This equipment will be furnished by Chattanooga Machinery Co. of Chattanooga. Engines are being furnished by Wheeland Machine Works of Chattanooga, and boilers are being overhauled and re-set with steel casing and patent flat-top dutch ovens by Casey-Hedges Company of Chattanooga.

To Manufacture Patent Flooring.

The Masters Patent Floor Co., Knoxville, Tenn., will begin manufacturing this week. It has leased a three-story building and purchased machinery for a daily capacity of 10,000 feet of flooring in sections, 18 inches wide and of various lengths as desired. The company was mentioned recently as incorporating with \$60,000 capital stock. Its officers are: President, J. F. Masters; vice-president, W. D. Hogan; secretary-treasurer, C. S. Agee; manager, J. F. Masters.

Link-Newcomb Timber Development.

The Link-Newcomb Mill & Lumber Co. of Benton, Miss., is progressing with its Claiborne county developments. It is erecting a mill building 36x90 feet, with a filing-room 18x48 feet, all two stories high, of wood and concrete construction, and is installing a band mill furnished by the Fay & Egan Company of Cincinnati. This plant will have a daily capacity of 25,000 feet of lumber, and will cost about \$25,000. The company is also constructing two miles of standard-gauge tram, using 35-pound steel for logging the mill. It will use a steam skidder for logging and loading. By June 1 the entire facilities are expected to be ready for use.

Big Mill for Arkansas.

It is understood that Deere & Co. of Moline, Ill., have awarded contract for the construction and equipment of a complete lumber plant to develop its 34,000 acres of timber land in Ouachita county, Arkansas. The plant will be equipped, it is stated, to cut and resaw 100,000 feet of hardwood lumber daily, and will include drying sheds and kilns of large capacity, besides extensive storage facilities. The Allis-Chalmers Company of Milwaukee, to which it is said the contract has been awarded, telegraphs the MANUFACTURERS RECORD that plans for the plant are not sufficiently complete for publication.

National Hardwood Lumbermen.

Features of the convention this week at Memphis, Tenn., of the National Hardwood Lumber Association will be the address by President Fred A. Diggings of Cadillac, Mich.; the report of Secretary-Treasurer Frank F. Fish of Chicago, and reports of standing committees, on transportation, by Emil Guenther; on forestry, by John M. Woods, and on inspection rules, by J. M. Pritchard, and the election of officers. Memphis lumbermen and other business men of the city have prepared entertainment for the visitors, including the banquet, a vaudeville show and an automobile tour.

Plant to Cost \$90,000.

The Williams-McKeithan Lumber Co. of Lynchburg, Va., will rebuild, at an estimated cost of \$90,000, its plant recently burned at Lumber, S. C. This plant will have a daily capacity of 70,000 feet of lumber. It will include double-band saw-mill building 56x160 feet, with concrete floors and metal roof, bids to be opened May 15. Bids are also wanted on a 36-inch smokestack 80 to 90 feet long and on V-crippled galvanized-iron roofing. Machinery contracts have been awarded.

TEXTILES

[A complete record of new textile enterprises in the South will be found in the Construction Department.]

Correspondence relating to textile matters, especially to the cotton-mill interests of the South, and items of news about new mills or enlargements, special contracts for goods, market conditions, etc., are invited by the MANUFACTURERS RECORD. We shall be glad to have such matters at all times, and also to have any general discussion relating to cotton matters.

THE MARKETING OF COTTON.

President W. B. Thompson of the New Orleans Exchange Talks to Bankers.

In an address before the Louisiana State Bankers' Association at Baton Rouge, President W. B. Thompson of the New Orleans Cotton Exchange, discussing the relation of warehousing and future contract trading to safe and economical marketing and financing of the cotton crop, said:

"In all the years that have gone before, the cotton producer has labored under a double burden; it has cost him too much to make his crop, and he has realized too little therefor when sold. The first handicap has resulted from his own uneconomic methods of living and of crop production, which methods he must and will, as heretofore suggested, perforce improve. The second hardship proceeds from conditions over which the farmer has had no direct control. His own financial necessities in conjunction with expensive, insufficient and unscientific marketing facilities and methods have been responsible for the paucity of the net returns. The faulty marketing system, I am encouraged to believe, will in the near future be rectified if not revolutionized.

"It is hardly necessary for me to call your attention to the fact that the crop which requires nearly 12 months in the making and gathering, and fully that time in the spinning and manufacture, practically passes from the producer's hands in one-third of that time. This method of marketing is unique in its crudity and appalling in the extent of the loss entailed thereby. The farmer makes the cotton and then dumps it upon the market. Spinners provide for current needs, and the surplus is sold for what it will bring to middlemen who whisk the greater part of the crop through our ports to foreign centers of accumulation. From these foreign centers the surplus is distributed throughout the year as demand calls for supply. The foreign owners of the cotton thus reap the benefit of gradual marketing; the foreign warehousemen and foreign labor secure the remuneration for storing and handling these great stocks, and the foreign banks and foreign insurance companies and all collateral lines of business secure the profits that accrue from the carrying of this great world-desired commodity.

"In former years the precipitate outflow of the crop was primarily the result of the farmers' necessities. The crop was made largely on the credit basis, and when it was ready for the market those who had advanced money and supplies thereon called for payment, in order that they in turn might meet their own obligations which were made to mature at this particular time. In recent years the farmers have to some extent liberated themselves from the bondage of the credit system, and are, therefore, not all obliged to summarily dispose of their crop. But even the independent farmers do not to any adequate extent realize the logical advantages that should come as the result of gradual mar-

keting. This is because under present conditions the local and domestic facilities for holding cotton are so insufficient and the expenses of warehousing and handling are so considerable, that the profit which should be realized by marketing over the 12 months' period is offset by the cost of such equitable distribution.

"If we desire to establish great holding and distributing centers at the ports of the Southern States in the place of those established in foreign ports; if, by the concentration of demand and the regulation of the volume of supply we would raise the level of prices at which the farmer would sell his entire crop; if we wish to transform these hoped-for Southern distributing markets from financial dependencies into independent money centers—we must direct our attention and effort toward some constructive movement by means of which conditions will be created at such ports which will enable the owner of cotton to carry it at the minimum of expense and to secure thereon such documents of ownership as will invite loans at the minimum rate of interest. Such a consummation would in turn bring large shipments of cotton to such market and attract buyers thither for supplies; would bring money and business to the banks, and would hasten the great day when the South would have direct exchange connections with Europe and not be dependent upon the tyranny or the exigencies of intermediaries."

President Thompson reviewed the details of the plan authorized at the last general election for the operation of warehouses by the Dock Board of New Orleans, discussed possible objections to the plan which looks to the encouragement of accumulation of large stocks of cotton for gradual distribution and the supplying of the best, cheapest and safest facilities for carrying the stocks, and then, in dealing with the subject of the future contract exchange, said:

"Future trading does not increase speculation in cotton; on the contrary, it materially diminishes such speculation. Moreover, it places the burden of speculation upon the few who are willing and best able to bear it, and relieves the many who are unwilling and unable to assume the risk. Future trading tends to confine speculation to a limited class of traders in contracts, and thereby makes it possible for a multitudinous class to transact a non-speculative business in spot cotton.

"The cotton spinner does not want to speculate on his contracts to supply manufactured goods to his trade, nor does the buyer or exporter want to speculate on his purchases; neither does the banker want to speculate on the collaterals to his loans. The cotton crop is put upon the market, as heretofore shown, within the space of a few months. The spinner does not want to buy his yearly supply practically at once, but desires to equalize his purchases over the 12 months' period. If he made his contracts to deliver goods at a stated price, without having a guarantee that he could secure, on a stated basis, the cotton with which to fill said contracts, his business would be essentially speculative. If, on the other hand, the buyer or exporter could not hedge at a stated price, such cotton as he had bought during the period of heavy movement and surplus, expecting to place it later with the spinner, he either would not buy at all under such circumstances (in which case the farmer would have to assume the speculative risk), or, if he bought, he would speculate against the chance of a decline in the market occurring before he had found a purchaser for his holdings. In both of these cases the banker who was carrying the spinner or

the exporter or buyer would to an extent participate in the speculative ventures of the borrowers.

"The importance of a future market not only to the producers, dealers and manufacturers, but to the bankers as well and to the country at large, can hardly be overestimated. The commodity for which there is no future market is under conditions that frequently recur, a sluggish asset, and at times even a dead weight.

"When we appreciate the protective functions and agency of future contract trading, it does not require any extended argument to show that this system is an important, if not an indispensable, factor in the great plan of establishing in America the dominant market for concentration and distribution. A great stock of cotton cannot be carried without protection against loss by fire, nor can it be carried safely without protection against loss by reason of fluctuations in value. Practically all of the mammoth stock warehoused in Liverpool and in the great Continental ports is at all times hedged in the future market. It would profit us little, and our large design would fail, if, after having built our warehouses, and after having reduced charges to the desired minimum, we found that the owners of the stocks would be subjected to discouraging risks, and, furthermore, could not finance their collaterals upon those pre-eminently favorable terms accorded to protected securities. We will need a broad and efficient and fairly-conducted system of future trading as much as we will need a comprehensive and economical system of warehousing and handling.

"Unfortunately, while some workers are striving to build up the cotton trade by efforts to improve all facilities, other agencies are seeking by legislative prohibition to destroy one of the most important. The bankers of the country need no admonition as to the danger of ill-considered legislative interference with the complex machinery of trade. Their energetic and efficient efforts in opposing the drastic anti-cotton-future measure recently pressed in Congress shows that they are alive to the necessity of preventing the threatened catastrophe."

The Inverness Mill.

The Inverness Mills Co. of Winston-Salem has completed its plant, previously described. It has invested about \$190,000, and is equipped for a daily capacity of 10,000 yards of 64x64 38½-inch print cloth. Main building is two stories high, of brick construction, 104x201 feet; picker building is 100x65 feet; another structure is 20x65 feet and equipped to step-down electricity from 10,000 to 2300 volts for light and power. About 400 horse-power will be used, and electricity will be obtained from Winston-Salem transmission lines of Southern Power Co. of Charlotte. The mills' textile machinery includes 8000 spindles furnished by Whitin Machine Works, Whitinsville, Mass.; 200 40-inch automatic looms by Stafford Company, Readville, Mass.; pickers by Kitson Machine Shop, Lowell, Mass.; roving machinery by Woonsocket Machine & Press Co., Woonsocket, R. I. The plant includes building and tenements costing about \$40,000, 45 acres of land on two railways, etc. C. R. Makepeace & Co. of Providence, R. I., were the architects-engineers, and Lawrence MacRae, secretary-treasurer of the Inverness Mills Co., was the constructing engineer.

The International Corporation.

The International Cotton Mills Corporation of New York has issued its first report. It controls the Consolidated Cotton Duck Co. of Baltimore and other compa-

nies, and its first report refers to its business for the five months of 1910 ended with December 31. The report shows that the earnings of the company, which include the net incomes of the J. Spencer Company, the Consolidated Cotton Duck Co. and Mt. Vernon-Woodberry Cotton Duck Co., with dividends from the Bay State Cotton Corporation and the Boston Yarn Co., all controlled by the International, for the period mentioned were \$306,641, from which must be deducted the interest on bonds of constituent companies, including the first mortgage bonds of the Mt. Vernon-Woodberry Cotton Duck Co.

Building the Oakland Mills.

The Oakland Mills of Newberry, S. C., has nearly completed main building, and will soon be ready to install equipment of machinery. This structure is four stories high, 130x216 feet, and will contain 20,000 spindles, 500 looms, etc., for manufacturing cotton cloth. There will be 70 cottages erected for mill operatives, and 56 are to be begun this week. The Fiske-Carter Construction Co. of Worcester, Mass., and Spartanburg, S. C., is the building contractor. The organization and plans of the Oakland company were detailed some months ago by the MANUFACTURERS RECORD.

Alta Vista Cotton Mills.

It is stated that C. E. Hutchison of Mt. Holly, N. C., has been elected president of the Alta Vista Cotton Mills, and that the company will proceed to complete its plant at Alta Vista, Va. This company's organization and plans were detailed last year. Contracts were awarded for buildings, machinery, etc., including a two-story 125x300-foot main structure, 13,000 spindles, 300 looms, etc., for manufacturing fine lawns. Electric power will be used.

Aldora Mills to Weave Cloth.

The Aldora Mills of Barnesville, Ga., will erect an additional building two stories high, of brick construction, 100x240 feet, and install looms. This will enable the company to weave its present output of cotton yarn from a 10,000-spindle equipment. The company has contracted for electricity for power from the local transmission system of the Central Georgia Power Co. of Macon. Reports state the Aldora enlargement will cost \$150,000.

Cotton Men at Richmond.

Richmond, Va., is preparing for the fifteenth annual convention of the American Cotton Manufacturers' Association, which will meet there May 18-19. The program of the meeting was published in the MANUFACTURERS RECORD of April 27. Mr. D. Y. Cooper of Henderson, N. C., is president of the association, and Mr. C. B. Bryant of Charlotte, N. C., is secretary and treasurer.

National Oilcloth Mill.

The National Oilcloth Co., William Nesbitt, president, St. Louis, will not be ready for about eight weeks to announce details of its plant. This company was mentioned recently as incorporating with \$75,000 capital stock and planning for a daily capacity of 24,000 yards of oilcloth.

Brenham Cotton Mills.

The Brenham Cotton Mills, Brenham, Tex., has been purchased by the stockholders, who will at once arrange for the reorganization previously mentioned, and intend to install new machinery. This plant has 5000 spindles, 171 looms, etc., for manufacturing sheeting.

Kansas City Cotton Mills.

The Kansas City Cotton Mills of Kansas City, Mo., will operate 10,680 spin-

dles and 236 automatic looms and employ from 150 to 200 operatives. Character of output has not been determined. This company was referred to last week as preparing to begin operations.

Prices on Hosiery Machinery.

J. W. Hollingsworth of Louisburg, N. C., is interested in a plan to install hosiery knitting machinery, and wants prices on that class of equipment.

Textile Notes.

The Double Shoals (N. C.) Cotton Mills will improve water-power plant, and has engaged James Leffel & Co. of Springfield, O., as engineers in charge.

The Lane Cotton Mills Co. of New Orleans states it has no additional buildings in contemplation. The report last week was, therefore, not correct.

The Rhodes Manufacturing Co. of Lincoln, N. C., has installed additional machinery costing about \$2000. It is manufacturing army duck, 37 inch, 8 ounce.

Reports state that Clarence T. Covington of Rockingham, N. C., is planning the organization of a corporation to consolidate several knitting-mill companies in his State.

The Parker Cotton Mills Co., Greenville, S. C., will make a few minor additions to its Beaver Dam Mills at Edgefield. This plant has 10,120 ring spindles, 322 broad looms, etc., for manufacturing print cloth, and employs 250 operatives.

The John P. King Manufacturing Co. of Augusta, Ga., will increase capital stock (\$1,000,000) by issuing preferred 7 per cent. stock for \$400,000. This company operates 60,384 ring spindles, 1812 looms, etc., on the production of sheetings, shirtings and drills.

Interstate Cottonseed Crushers.

Among the speakers at the annual meeting in New York city June 7-9 of the Interstate Cottonseed Crushers' Association will be Henry R. Towne, on scientific cost reduction; Dr. W. W. Wiley, on cottonseed oil as food for man; Judge Henry C. Hammond of Augusta, Ga., on the anti-trust business, and Julian L. Brodie, on foreign markets for cottonseed products. Mr. B. F. Taylor of Columbia, S. C., in a circular letter to members of the association says with reference to the meeting:

"The many questions that will now arise affecting our business in the making of the new tariff law are extremely important, and should have the most careful consideration by the association, as the expressions embodied in resolutions by the association will carry the utmost weight before the committees of Congress. Among these questions are the free admission of oil seeds, the free admission of oleo stearine and the tariff on cottonseed oil and other oils imported into this country; free jute bagging for cotton and free burlaps for meal sacks; free twine, free wool and camel's hair for manufacturing press cloth, and free press cloth. In addition to these matters before Congress, the tariff legislation of other countries imposing prohibitive duties on our products ought to be considered by us and recommendations made to the Department of State."

A Birmingham Sale.

The sale of a lot 25 feet front by 100 feet deep in Birmingham is reported at \$4400 a front foot, the highest price ever paid for business property in that city. This is a higher figure, we believe, than has ever been paid for business property in Baltimore. The property was purchased by local people, and the price paid is indicative of the faith that the Birmingham people have in the future of their city.

MINING

Continental Coal Corporation.

The Continental Coal Corporation has been formed to effect its proposed merger recently mentioned by the MANUFACTURERS RECORD. Its capital stock is \$6,000,000, of which \$3,000,000 is stock and \$3,000,000 is bonds. This consolidation includes companies owning about 30,000 acres of land, estimated to contain 300,000,000 tons of coal. Its main offices are at Chattanooga, and its mine offices at Wallsend, Ky. Earl Martin is president and general manager, with H. L. Corey as vice-president and sales manager, and S. O. Le Seur as secretary-treasurer, all of Chattanooga, Tenn. The consolidation includes Continental Coal Corporation of Tennessee; American Coal Land Co.; Black Raven Coal Co.; Straight Creek Coal & Coke Co.; Straight Creek Collieries Co.; Straight Creek Coal & Mining Co.; Central Coal Co.; Left Fork Company; 11 miles of railroad connecting mines with the Louisville & Nashville Railway. W. L. Moss of Pineville, Ky., will be general superintendent of mining.

Wisconsin Steel Co. Development.

The Wisconsin Steel Co. of Chicago (subsidiary to the International Harvester Co.) is progressing with its Harlan county (Kentucky) coal and coke development, previously detailed by the MANUFACTURERS RECORD. W. C. Tucker of Benham, Ky., superintendent for the company, writes that progress has been as rapid as is consistent with hauling material and supplies across the Cumberland Mountains a distance of 35 miles. He states further that: "We have 65 houses for occupancy, our mines are driven in about 600 feet, and we have foundations for 100 beehive coke ovens built up to wharf level. The railroad is now within two and one-half miles of us, and as soon as the grade is completed and a small steel bridge put in, which will probably be June 1 to 15, we will begin receiving boilers and engines and steel rails, and the active work looking toward the erection of our power plant will be begun. We expect to have 120 ovens in blast before the first of the year."

Kentweva Company Incorporated.

The Kentweva Coal & Lumber Co. of Elkins, W. Va., has been incorporated with a capital stock of \$500,000 by Charles S. Robb, R. Chaffey, M. W. Wilson and W. A. Pugh of Elkins, and Merritt Wilson of Widdell, W. Va. Mr. Robb writes to the MANUFACTURERS RECORD that the new company will hold certain lands which he and associates have purchased in Kentucky. These parties are interested in the Harlan Coal & Lumber Co., mentioned some weeks ago, and the new company will probably take over all the property owned by Mr. Robb and associates. Details of developments planned will be announced later.

A \$150,000 Plant for Working Red Rose Granite of Oklahoma.

Recently the MANUFACTURERS RECORD referred to the incorporation of the American Red Rose Granite Co. of Granite, Okla., with \$500,000 capital stock. Thos. D. Eggleston of Washington, D. C., president of the company, writes, outlining the company's plan, as follows:

"We are putting in a strictly modern \$25,000 steel cutting and finishing shed and polishing plant for working the red rose granite of Oklahoma, which is not alone the only exact, but the only near duplicate of the world-famous Aberdeen granite of Scotland, which, for all gen-

eral commercial purposes, is extant. In addition to this modern steel shed, we are to install \$125,000 worth of strictly up-to-date granite-cutting and finishing machinery, by which we will be able to get this granite out and on the market 50 per cent. cheaper than it is being done anywhere today."

Oil Near Williamsburg.

Mr. E. C. Disel of Williamsburg, Ky., writes to the MANUFACTURERS RECORD: "Several wells have been drilled near here, and oil has been found in nearly all of them. But as most of the wells were drilled by small stock companies that did not want small wells, they were abandoned without shooting or testing them in any way. Oil runs now over the top of some of them, while in others the oil stands so that farmers draw it out with a can. This shows that these wells are fed from a large body of oil nearby."

Consolidated Phosphate Co.

The Consolidated Phosphate Co. of Columbia, Tenn., is planning to develop 500 acres of a 4000-acre tract of land containing phosphate deposits, but details have not been determined. This company incorporated recently with \$700,000 capital stock to acquire the Union, Big Swan, Syndicate and Centerville phosphate properties. Its president is George W. Killebrew and its secretary-treasurer is John W. Fry, both of Columbia.

Gallacher Coal-Mining Plans.

The Gallacher Coal Co. of Birmingham, recently incorporated with \$25,000 capital stock, is now ready for mining coal at Lewisburg, Ala. It has 320 acres for development, and its plant's daily capacity is 800 tons of coal. All the machinery is installed, including a washer with 500 tons daily capacity. James Gallacher of Birmingham is president, A. J. Clark is secretary and H. L. Morrow is treasurer.

Avon Coal Development.

The Avon Coal Co., 64 Blymyre Building, Cincinnati, will develop 1700 acres of coal land at Man. W. Va. It has not determined all details, but is prepared to receive prices on boilers, engines, pumps, building materials, electrical equipment, mining machinery, tipples, screens, rails and mine cars. Daniel McLaren is president and Alexander Cunningham is vice-president-general manager, both of Cincinnati.

McGregor Coal Development.

The McGregor Coal Co. of Charleston, W. Va., will develop 5000 acres of land at Rolfe and plans a daily output of 1500 tons of coal. Details have not been determined, and machinery quotations will not be considered for 90 days. John Laing is president and W. T. Green is treasurer, both of Charleston, of this company, which incorporated recently with \$300,000 capital stock.

Texas Coal and Lignite.

Dr. William B. Phillips, director of the University of Texas bureau of economic geology, reports that in 1910 Texas produced 1,128,947 tons of coal, valued at \$2,829,389, and 979,232 tons of lignite, valued at \$941,709.

Alabama Fisheries.

Oysters valued at \$173,000 led among the fishery products of Alabama in 1908, which had an aggregate value of \$387,000, according to the Census Bureau. Second in value were red snappers, \$92,000; third mullet, \$33,000; fourth catfish, \$17,000, and fifth buffalo fish, \$11,000.

MECHANICAL

The American Balanced Governor.

An improved shaft governor for use on high-speed engines, in which the shaft governor replaces the ball or pendulum governor, has been developed by the American Engine Co. of Bound Brook, N. J., for use on all engines built by that company, whose Southern representative is A. St. C. Dunstan, Auburn, Ala. The development was made primarily for the American-

and B are so proportioned that their centers of gravity always balance each other, no matter what position the engine shaft is in. Another improvement is the use of two braced springs. These springs are so braced that they resist gravity and centrifugal force, and are not subject to the swaying met with in single springs, especially when operating at high speed. These springs also provide means for making slight speed adjustments. All of the mechanical details of this spring have been carefully worked out, and two stops on the arm A prevent the governor from shift-

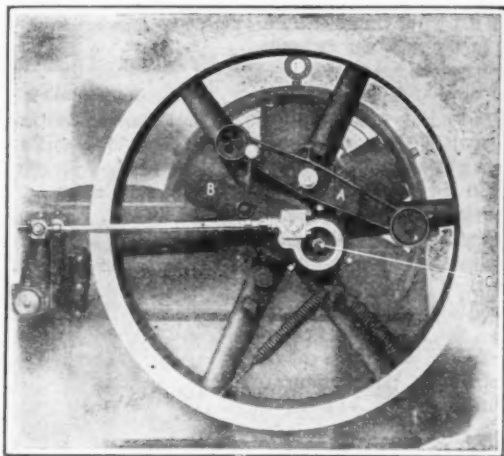


FIG. 1.—AMERICAN BALANCED GOVERNOR.

Ball angle compound engine, from the ordinary shaft governor, with the object of overcoming the effects of gravity on the centrifugal weight when directly over or under the bearing of shaft or balance wheel. The method by which this was effected is shown in accompanying Fig. 1, and the angle compound engine, with this governor fitted to balance wheel as shown in Fig. 2. The American balanced governor consists of the arm A, pivoted at some convenient point and having a weight at the right-hand end which is acted upon by the centrifugal force. Connected to A

ing beyond certain limits. It should be noted that governors on the angle compound engine are not subjected to the racking and vibration that is usually met on single engines, for the reason that the angle compound engine is so perfectly balanced that practically no vibrations are set up. Thus there is nothing to loosen the adjusting screws on the governor.

Soule Steam-Feed Machinery.

The latest improvements made by the Soule Steam Feed Works of Meridian, Miss., are represented in the series "C"

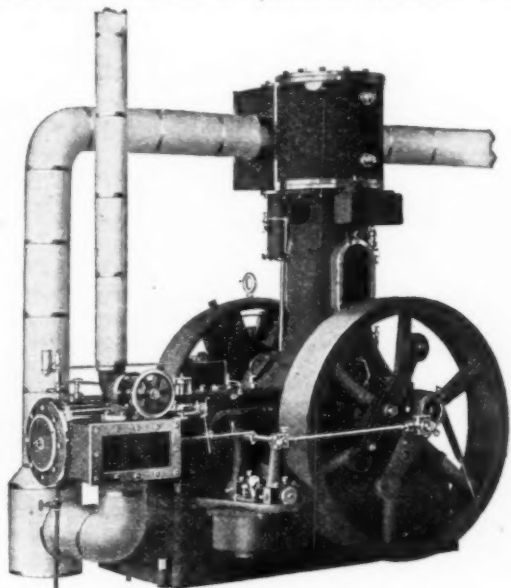


FIG. 2.—AMERICAN-BALL COMPOUND ANGLE ENGINE.

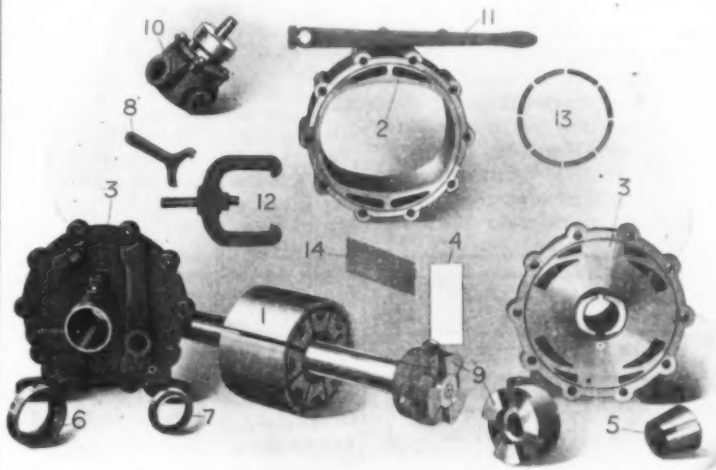
by means of a link is another lever, B, which carries the movement to the pin that determines the throw of the steam valve. B is free to move about the center C, and change the eccentricity of the valve pin by an amount depending upon the position assumed by A, which, in turn, depends upon the speed of the engine. The arm B is so designed that its center of gravity coincides with the center of the shaft; therefore, the speed of the engine does not tend to move it one way or the other, and in order to counteract the gravity effects mentioned above, the arms A

steam-feed machine in two illustrations herewith, one being the assembled machine and the other showing working parts of the "feed." The Soule Works design and build sawmill specialties. Mechanics of long experience in sawmill machinery are employed. In the catalogue describing the improved series "C" feed it is stated that each machine is shipped with all fixtures needed, ready for pinion shaft, main and exhaust steam pipes, and the steam "feed" is referred to as a double rotary steam engine of novel type. By reference to the illustration of parts it is noted that the

"runner" is in effect a plain cylinder, mounted upon a shaft, and has eight radial slots cut through its periphery and extending nearly to the shaft, and it is in these slots that the plain flat piece pistons work. The interior of the case is a modification of an ellipse in form, and the "runner" is just an easy fit in the smaller radial axis of the case. The heads have four ports each, changing from steam to exhaust. The shape of the interior of the case is the

the torsional strain on the shaft represents the power transmitted.

In this machine there is practically no friction load and no pressure, other than its own weight, on any part that slides on any other part, thus eliminating frictional losses always found in reciprocating engines. This engine has high qualities of durability, due to this elimination of friction and the fact that the case is grit proof, and the inside of the case is lined

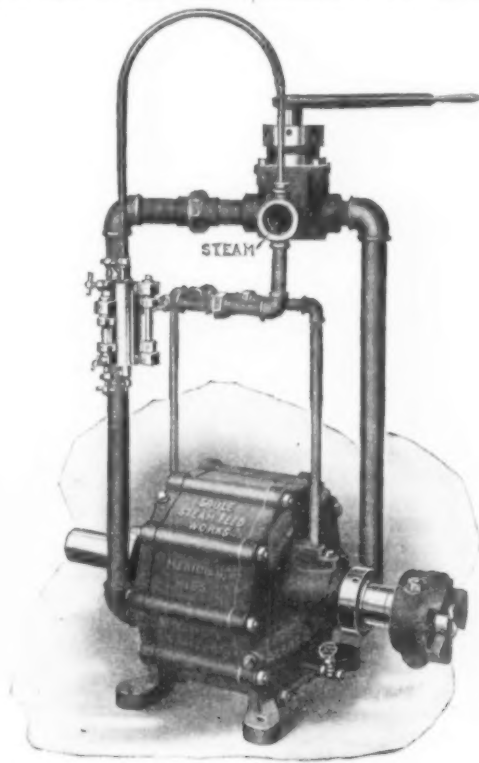


SOULE STEAM FEED PARTS.

are of a circle between the ports, and the distance between these ports is one-eighth of the circle, corresponding with the distance apart of the pistons. From this it results that the pistons are at work with they are between these ports, and therefore are not moving in the slot while under pressure so as to produce friction, but while they are moving in the slots they are in equilibrium in steam or exhaust space.

with hand-saw steel. The entire machine is oiled by one lubricator, the oil passing first to the journal, then by steam into the center of the runner, which is hollow, passes to the sides of the pistons and works out to the case and on into the exhaust steam.

The series "C" feed has a disc type throttle valve, which takes up any wear automatically and will not leak or wear



SOULE STEAM FEED ENGINE.

There is always one piston between each steam and exhaust port, to be acted upon by pressure, and as it is also one-eighth of the circle between the smaller ends of the ports, there is always one piston between ports, to keep the steam from passing backward; hence there is no necessity of the runner making a tight joint with the case. This construction gives a direct rotary impulse to the runner on two opposite points; thus there is no pressure or strain on the journals of the shaft, and

out. It is made in four sizes to suit any capacity of mill.

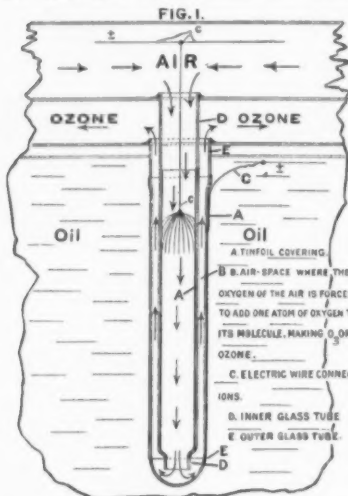
The names of the parts as numbered in the illustration are as follows: 1, runner; 2, case with steel lining fitted; 3, heads; 4, pistons, eight in set; 5, taper-sleeve bearings; 6, packing nut; 7, follower ring; 8, spanner wrench; 9, coupling, each half; 10, valve; 11, valve handle; 12, pull-clamp and screw; 13, packing rings for heads or runner; 14, packing wires for pistons. Full instructions for

connecting up to carriage, for care in handling, operating, etc., are given in the Soule catalogue; also prices, horse-power of different sizes, etc.

Other manufactures of this company are Soule simplex edge lumber stackers, flat lumber stackers, rope drum outfits, St. Bernard sawmill dogs, power timber handlers, steam windlasses, lumber buggies, racks, gearing, etc.

Gerard Water Ozonizing System.

For the past three years our European consular reports have contained frequent references to new systems for water purification installed by the cities of France and Germany. Prominent among these and most interesting has been the ozone process, by which the water, after rough filtration, is sterilized by ozone produced electrically. It is interesting to learn that the American rights under the funda-



GERARD WATER OZONIZING SYSTEM.

mental patents known as the Gerard system, after the inventor, De Leon Gerard of Brussels, have been purchased by the Electrical Properties Co. of New York, whose president, John F. Wallace, was formerly chief engineer of the Panama Canal and one of the most progressive of American engineers. The entire Southern territory is under the management of Messrs. Tucker & Laxton, 906-907 Realty Building, Charlotte, N. C. On account of its promise of sanitary and industrial importance, we present a report on the first of these systems installed in the South.

This is the plant at Great Falls, S. C., owned by the Republic Cotton Mills and supplying water not only to the mill, but to all residences and business houses in the village. The capacity of the plant is 80,000 gallons per 24 hours, or approximately 55 gallons per minute. The source of water supply is the Catawba River, draining at that point about 4200 square miles, and therefore of fairly uniform chemical and bacterial content.

As in every stream except where the entire watershed is uninhabited and under control, there is always present in the water the evidence of sewage contamination in the form of colon bacilli. As the germs of water-carried diseases come almost entirely within this classification, a negative test for colon is an indication of safe water, though, of course, the absence of injurious chemicals is essential. It is in the absence of chemical treatment that the great advantages of the ozone process appear. The ozone-producing apparatus, a diagram of which is presented herewith, is a very simple device, has no moving parts and depends for its effectiveness upon the production of ozone by passing dry air through a space between concentric glass tubes, the space being kept electrostatically charged by the application of ordinary 60-cycle alternating electric current. The air passing through this space

has part of its nitrogen freed and its oxygen recombined into ozone, a most powerful oxidizing agent. A blower is employed for forcing the air through the ozonizers and into the spray tower, though in cases where the water would be taken at city pressure injectors could be used for this purpose. The application of the ozone to the water is simply an intimate mechanical mixture and is in this plant provided by spraying the water through nozzles into a small closed concrete tower into which the ozone is blown. There is provided under the tower a covered clear-water basin, from which the water is pumped direct into the standpipe and mains.

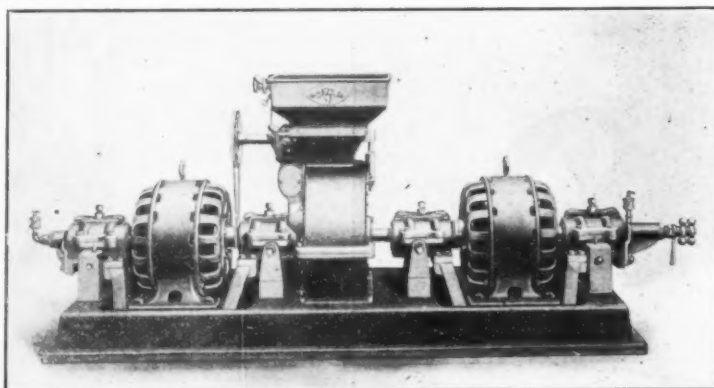
In the Great Falls plant there are two ozonizing units of 10 tubes each, and the ozone produced (about one gram per minute) is several hundred times that actually taken up in the oxidation of the organic matter in the most contaminated waters, but the energy required is so small that it is cheaper to produce the excess ozone than extend the mixing process. The units take by actual test 400 watts each, with a very desirable leading power factor. Not only is all organic matter killed by the ozone, but passed out of the water entirely as in the gases of ordinary combustion, so that the water, instead of inviting bacterial growth, as in boiled water, is charged with oxygen and will resist contamination. Preliminary treatment of the water consists of filtration to remove the mud after coagulation in the settling basin.

The following test results will, even to the layman, indicate that the simple processes of filtration and sedimentation are not protection against contamination, whether normal or accidental, but that the ozone process affords absolute safety:

Raw water from Catawba River: Average count bacteria per cubic centimeter, 6000; colon group present in samples of 1-10 c. c.; turbidity, 300; alkalinity, 26 pts. per million.

Water in basin after sedimentation and rough filtration: Average count bacteria per cubic centimeter, 470; colon group present in 100 c. c.; turbidity, about 10; alkalinity, 15 pts. per million.

Water after passing ozonizing plant: Average count bacteria per cubic centimeter, 1; colon group not found in sam-



ROBINSON TYPE J ATTRITION MILL.

ples of 100 c. c.; turbidity, about 10; alkalinity, 5.5 pts. per million.

Estimating the cost of electrical energy at 2 cents per kilowatt hour, one unit of 400 watts would cost 20 cents per day of 24 hours and purify 40,000 gallons of water, an energy cost of one-half cent per thousand gallons; cheap protection when we reflect on the toll of water-carried diseases.

While the purification of water is probably the most important field ahead of ozone, it is already beginning to fill many long-felt wants for a safe sterilizing and

bleaching agent in the great packing-houses of the West, in the refinement of oils, and in many manufacturing processes.

A 12-Inch Galvanized Wall Tie.

The Niagara Falls Metal Stamping Works, Niagara Falls, N. Y., is mailing a folder descriptive of the company's 12-



A 12-INCH GALVANIZED WALL TIE.

inch galvanized wall tie. This tie is invaluable for stone and concrete-block walls when there is a danger of cracks or openings occurring in the walls due to faulty foundations or imperfections in mortar or laying. Every tie that is sent out from the factory is thoroughly well made, and the fact that many of the leading architects are including them in their specifications speaks well for the quality of the product. Concrete-block walls have quite as much tendency to crack as brick walls, and probably more, and the ties, whether single or double width, properly placed and used in sufficient numbers are proof against cracks. See accompanying illustration. Builders and contractors can obtain free samples of the tie by writing to the manufacturer.

Electric Drive in Attrition Mills.

A new type of grinding mill has recently been built in which each grinding head is driven independently by a Westinghouse electric motor connected directly to the shaft which carries the head. This is known as the Robinson type J attrition mill.

The general construction of the mill is shown in the accompanying illustration, which also shows some of the details of the method of supporting the motors. In order that the grinding heads may be easily and accurately trammed, there must be some provision for moving the motors. This freedom of adjustment is provided by mounting each motor in a cradle or a yoke which is suspended from the bearings, but not direct from the machine bed-plate. The inside bearings, those between the motors and the grinding heads, are so mounted as to act as universal swivel joints. The outside bearings are supported by set screws, which permit ver-

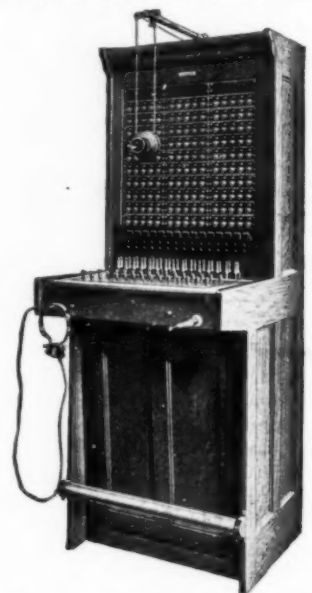
capacity of 20 horse-power, and tests which have been made show that with the motors fully loaded the mill will handle 7400 pounds of corn per hour, and when three-quarters loaded 6100 pounds. The corn is ground fine enough for bolting through a No. 14 mesh screen.

The mill is built by Munson Bros. of

Utica, N. Y., and the motor by the Westinghouse Electric & Manufacturing Co. of Pittsburgh.

A New Line of Convertible Switchboards.

The Western Electric Co., 463 West street, New York, and Hawthorne, near Chicago, has just placed on the market a



NEW CONVERTIBLE SWITCHBOARD.

new line of telephone switchboards, which should fill a long-felt want among small telephone companies. This type, known as the magneto convertible non-multiple switchboard, is so designed that it can be used originally for magneto service and then converted at will for central battery operation.

These convertible switchboards are recommended for use in new exchanges where the present conditions call for magneto service, but where central battery service will eventually be used. Their use makes possible the greatest economy right at the start when magneto service is required. Later, when it becomes more economical to operate the exchange on a central battery basis, the common battery lines can be added as needed, and the switchboard will operate just as economically as a central battery equipment. Sometimes it is advantageous to make this change from magneto to central battery gradually, and this convertible switchboard allows both kinds of service at the same time. The switchboards, as in the accompanying illustration, are made in two sizes, the No. 1256, having a capacity of 330 magneto or common battery lines, 30 pairs of cords and 30 transfer circuits, and the No. 1246, having a capacity of 165 magneto or common battery lines, 15 pairs of cords and 15 transfer circuits. They are so designed and constructed that any number of sections can be readily lined up together, so as to make a switchboard with several positions without making a single change in the woodwork of the cabinet, and the sections when so arranged present the appearance of one continuous cabinet. The well-known combined jack and signal used in the company's No. 1800 type

switchboard is used in this board, and most of the apparatus used is standard, having been employed in many of the company's switchboard circuits for years.

These magneto convertible switchboards are characterized by easy and economical operation, accessibility of all parts, low maintenance expense and ready adaptability to every service condition.

Hyndman Metal Shingles.

Building contractors, architects and owners will find their attention attracted to the two accompanying views of Hyndman metal shingles. These shingles are manufactured by the Hyndman Roofing Co. of Cincinnati, which says:

"Hyndman's 'Xlent' and 'Security' metal shingles are adapted to roofs of moderate pitch, on any kind of building. They are



HYNDMAN "XLENT" METAL SHINGLE.

made from our own special brand of tinplate, painted or galvanized, and form a handsome, durable, fireproof roof, taking low rates of insurance. They are easily laid, economical to maintain, and a source of comfort and satisfaction to the owner. They combine all the good features found in other coverings of this class, without any of their disadvantages or faults. Hyndman shingles are light in weight, overcoming an objection to slate and other



HYNDMAN "SECURITY" METAL SHINGLE

heavy roofings which require special rafters and sheathing. They lay level on the roof, and make absolutely water-tight roof in winter or summer, the method of application providing for contraction and expansion of the metal. They will not buckle or become loose in hot or cold weather, and will not rattle in the stiffest gale. These shingles make a uniformly handsome and durable roofing, which can be applied by any ordinary mechanic without use of special tools, and which does not require soldering or expert manipulation to lay properly."

Wants Automatic Pianos.

Mendoza & Laroza, 530 Calle Filipinas, Lima, Peru, write the MANUFACTURERS RECORD:

"We would like some detailed information in regard to electrical pianos, to be set in motion automatically by the insertion of a piece of silver money 23 millimetres in diameter and weighing 5 grammes; the piano to play for 5 minutes, more or less, when the money is put in the slot. The motor for the piano is to be constructed for one-phase current of 104 volts and 60 periods."

FOREIGN NEEDS

Machinery and equipment wanted abroad are mentioned in many letters received by the MANUFACTURERS RECORD, which is so widely read in foreign countries that we are in constant receipt of many letters from all parts of the world. For the benefit of our subscribers seeking foreign trade we publish the following extracts from recent letters:

Flour Mills, Name Tags, Screws, Etc.

Panna Lal Dutt & Co., 60 Sitaram Ghose street, Calcutta, India, write the MANUFACTURERS RECORD:

"We represent many firms of London, Manchester, Vienna, Hamburg, Belgium, Switzerland, but so far have not the pleasure of representing any firm of your country. We ask you to help us to the following: American iron wood screws, brass and hinges; of these we do a large business in Calcutta. Our India is in need of a mill to grind wheat; we mean that we require one in each house to make flour for bread, and we want to find one of low value; every house must buy one to have wheat crushed daily for fresh food. The large mills, where the outturn daily is thousands of pounds, keep sufficient stock for sale, and these stocks are lying for months and months; hence the sweetness of the flour is lost. We have gathered our natives' idea and presume we shall be in a position to sell millions, the census report of 1911 estimating that there are 330,000,000 people in India. Should you consider our proposal agreeable, you may send sample with price based on terms c. i. f. c. Calcutta, 60-day sight documents on payment; our commission of 5 per cent. to be reserved and payment made quarterly. There are thousands and thousands of tailors in India, and they want their names fastened in coats and skirts; kindly send sketches and specifications with prices and documents on name tags; we may take up this line as well. We are interested in exporting our Indian curry pander and mango jellies. If you consider this suitable, please let us know, and we shall send you samples."

Opportunities in Russia.

J. Mendelsohn, 17 Konstatikner street, Lodz, Russia, writes the MANUFACTURERS RECORD: "My idea is to get together a number of American financiers and American machines and appliances the purchase of which I could recommend, and enameling the product, and machine shops turning our woodworking, hat-making and other machinery. There are many but the manufacturers are hopeless. Some have to be fairly driven to make an offer; others seem to think that I will take the moneyed people who will form a stock company to operate in Russia, building railways, digging canals, laying water pipes, equipping city passenger railways (tramways), erecting factories, etc. The Government would grant many valuable concessions for such work, and the undertaking would pay at the very lowest 12 to 15 per cent. in dividends. Or could your people themselves take the shares and place them, and with your own engineers, materials, machinery and tools carry on the work alone?"

"Some concessions could easily be bought in outright, and others readily obtained from the Government, for the Government could readily look to America for the work instead of being obliged to seek what it needs in Germany alone."

Boiler Fluids and Rubber Tires.

A. Stephen, 7 Swallow lane, Calcutta, India, writes the MANUFACTURERS RECORD: "I should like to have prices and

samples of boiler fluids. There is also a very large market for rubber tires for carriages here, and if you can offer me good rates I think a good business can be done. Sample of same with prices will oblige."

A Letter from Egypt.

Calderari & Co., P. O. Box 1366, Cairo, Egypt, write the MANUFACTURERS RECORD:

"We intend to travel several towns of the East and circulate these samples which manufacturers or other merchants would entrust to our care at our own expense. We greatly wish to enter into commercial relations with American firms under advantageous conditions for both parties. We take up the samples for our own account at half price, paying the cost and expenses cash. We assume to circulate same at our own expenses and book orders at manufacturers' prices against a commission to be established between both parties. We shall have to pass such orders direct and exclusively to the firm and assume any risk either by paying cash or giving a banking guarantee. If, therefore, you should have any house open to accept such an arrangement we shall be very much obliged if you will give our address."

For American Manufacturers.

Hermann Ruegg, Casier No. 104, Smyrna, Turkey, writes the MANUFACTURERS RECORD:

"I take the liberty of calling your attention to my business, which is that of agent and commission merchant in Asia Minor, and I hope you will give me the opportunity of serving you when occasion requires. You will oblige me very much if you will give me the addresses of some factories in the United States handling casings, that is, intestines, both dry and salted, for making sausages. The business to which I have the honor of calling your particular attention is that of commission merchant, operating throughout the Orient and looking after commercial interests in general, not only here, but also in Europe. I furnish information in regard to the condition of business houses, etc. I make collections, attend to legal matters of different kinds, custom-house work and similar matters relating to the commercial interest of my patrons."

Germany Wants American Machinery

Dr. Robert Grimshaw, Dresden, Germany, writes the MANUFACTURERS RECORD:

"Just now I am more interested in machinery for making and utilizing cement and in foundry appliances than in anything else, acting in an advisory capacity to the Department of Iron and Coal Mines and Salt Works of the Bavarian Government. Attached to the blast furnaces there are cement and cement-product works, foundries for making soil pipe and fittings, others for making hollow ware next steamer and bring the machines back next boat following. I am preparing an article for your columns which I hope will be acceptable as giving the reasons why Americans do not sell more in Europe."

Office Supplies, Printing, Labels, Etc.

Arturo A. Zoppi, Corrientes 457, Casilla Correo 80, Buenos Aires, Argentina, writes the MANUFACTURERS RECORD:

"I am desirous of receiving some catalogues and samples from lithographers or printers, as many of my customers here (I am, inter alia, a patent and trade-mark agent) wish to have their labels, cards, etc., made in the States, with a view to obtaining them cheaper and better finished. As I happen to be also a chartered accountant and an expert in handwriting, I

take a keen interest in all articles connected with writing and office work generally, such as pens, penholders, pencils, inks, erasers and all office appliances."

Gasoline, Naphtha and Petroleum.

Marques & Castillon, 186 Entre Rios, Buenos Ayres, Argentina, write the MANUFACTURERS RECORD: "Day by day we are doing more business in gasoline, naphtha and petroleum, and we beg you to give us anything new you can in regard to them. Which is the best naphtha made in the United States? Is Pratt's naphtha a process of manufacture, or is the name 'Pratt' a trade-mark? Does the Standard Oil alone make these goods, or do others also? Does 'Standard Oil' control all the oil factories in the United States?"

Wants Large Cotton Planter.

A. Norden & Co., Cotton Exchange Building, New York, write the MANUFACTURERS RECORD:

"We have an inquiry from abroad for a large cotton planter to cover several rows at one time, and not knowing quite where to apply for such a machine, we take the liberty of inquiring whether you can assist us, knowing you to be an authority on anything connected with Southern interests. We shall appreciate if you can give us the address of parties who manufacture such machinery."

Wants to Represent Manufacturers.

Finochiaro & Cambare, Via Ogninella N. 12, Catania, Italy, write the MANUFACTURERS RECORD:

"We are particularly interested in the following goods, which are actively imported into our country: Ladies' and gentlemen's shoes, leathers and skins for shoe finding and other purposes, automobiles, typewriters; also hard wheat. You will greatly oblige us if you will put us into communication with houses in these lines who would like to be represented by an agent in Italy."

Elevator and Stationery.

A. Stephen, 7 Swallow Lane, Calcutta, India, writes the MANUFACTURERS RECORD:

"I beg to know if you can offer me a small electric lift, second-hand, if possible, to carry about three persons at a time. Also let me know if (and when convenient send samples) there are any makers of inks, pencils and nips who can compete with British makers?"

For American Mercantile Enterprises

Guarnieri Gino, 53 Via Ricasoli, Florence, Italy, writes to the MANUFACTURERS RECORD:

"I would be very glad to get into communication with some American mercantile houses with a view to business in any kind of product, in perfect confidence that our relations would be mutually profitable to both. I shall be happy to give my references whenever occasion requires."

Belting, Hardware and Machinery.

Vazquez & Fernandez, Cuba 80, P. O. Box 1069, Havana, Cuba, writes to the MANUFACTURERS RECORD:

"We shall be indebted to you for the names of manufacturers of canvas belting and others in the lines of hardware and machinery in which we are interested."

Meat-Cutting Tools.

Marchisio Carlo, Turin, Italy, writes the MANUFACTURERS RECORD: "I seek for firms making machine for slicing meat, ham, sausages, etc."

A meeting is to be held at Columbus, Miss., May 30-31, in the interest of the improvement of the Tombigbee River.

Construction Department

TO OUR READERS!

In order to follow up properly the Construction Department items, please bear in mind the following statements:

EXPLANATORY

The MANUFACTURERS RECORD seeks to verify the items reported in its Construction Department by full investigation. It is often impossible to do this before the item must be printed or else lose its value as news, and in some items it is found advisable to make statements as "It is reported" or "rumored," and not as positive information. If our readers will note these points they will see the necessity of the discrimination. We are always glad to have our attention called to errors that may occur.

HOW TO ADDRESS

The name of one or more incorporators of a newly incorporated enterprise should always be shown on letter addressed to the official headquarters or to the town of the parties sought, as may be shown in the item. Sometimes a communication merely addressed in the corporate or official name of a newly established company or enterprise cannot be delivered by the postmaster. By following these general directions the postoffice will be enabled to deliver your mail promptly, although it is inevitable that some failure by the postal authorities to deliver mail to new concerns will occur.

WRITE PERSONAL LETTERS

In communicating with individuals and firms reported in these columns a letter written specifically about the matter reported will receive better and quicker attention than a circular. In most instances a return postal card or addressed and stamped envelope should be enclosed with letter.

"In correspondence relating to information published in this department, it will be of advantage to all concerned if the Manufacturers Record is mentioned."

The Daily Bulletin of the Manufacturers Record is published every business day in order to give the earliest possible news about new industrial, commercial, building, railroad and financial enterprises organized in the South and Southwest. It is invaluable to manufacturers, contractors, engineers and all others who want to get in touch at the earliest moment with new undertakings, or the enlargement of established enterprises. The subscription price is \$25 per year. On all advertising contracts in the Manufacturers Record for three months or longer a subscription for the contract period to the Daily Bulletin is included.

BRIDGES, CULVERTS, VIADUCTS

Ark., Pine Bluff.—Bill for erection of Pine Bluff free bridge has passed Legislature; to be ratified by property-owners; estimated cost \$750,000; Judge James Gould and others, commissioners; district to embrace all of Jefferson county.

Fla., Dowling Park.—Suwanee County Commissioners, Live Oak, Fla., and Lafayette County Commissioners, Mayo, Fla., will construct bridge across Suwanee River.

Fla., Sanford.—Orange County Commissioners will ask bids for construction of recently-noted bridge at Geneva Ferry; B. M. Robinson, Clerk of Circuit Court, Orlando, Fla.

Ga., Cuthbert.—Randolph County Commissioners ordered three steel bridges to span streams crossing public roads.

Ga., Waycross.—Atlantic Coast Line Railroad, E. B. Pleasants, chief engineer, Wilmington, N. C., will, it is reported, construct concrete and steel viaduct over Altamaha River.

Ky., Henderson.—Henderson County Commissioners awarded contract to Vincennes (Ind.) Bridge Co. at \$720 to construct six iron bridges.

Md., Towson.—Baltimore county will construct Strauss trunion bascule bridge on Eastern Ave. over Back River; bids received until May 18; Henry G. Shirley, County Roads engineer. (See "Machinery Wanted.")

Miss., Jackson.—City will receive bids until noon May 27 for erection of two bridges; re-

inforced concrete arch designs; also steel girder designs; plans, etc., with City Engineer, John J. Pierce. (See "Machinery Wanted.")

Missouri.—Chicago & Northwestern Railway, E. C. Carter, chief engineer, Chicago, Ill., reported to build bridge across Mississippi River near mouth of Missouri River; Hedrick & Cochran, 1118 McGee St., Kansas City, Mo., reported as engineers.

Va., Richmond.—City will construct reinforced concrete arch bridge over Gillies Creek; bids received until May 16; Charles E. Bolling, City Engineer. (See "Machinery Wanted.")

Tenn., Chattanooga.—Bids will be received for construction of steel bridge across Sale Creek; 90 feet long and 18 feet wide; plans ready in about one week; W. L. Dodds, County Engineer.

Tex., Bluffton.—Commissioners' Courts of Burnet and Llano counties invite plans, specifications and bids on construction of Colorado River bridge at or near Bluffton; also bridges across Lampasas River at Blacks Crossing, near Oakalla; across Middle Gabriel in Burnet county; across Hickory Creek, Llano county, and over Wrights Creek in Llano county; A. H. Willbern, County Judge, Llano county; J. G. Cook, County Judge, Burnet county. (See "Machinery Wanted.")

Va., Lynchburg.—City is considering construction of reinforced concrete bridge over James River, to cost \$150,000 to \$200,000; H. L. Shauer, City Engineer. (See "Road and Street Work.")

Va., Spotsylvania.—Spotsylvania county contemplates construction of steel structural and reinforced concrete bridge across Po River at Snell, Va. Address County Commissioners.

CANNING AND PACKING PLANTS

Fla., Lake Weir.—Carney Investment Co. has plans by A. H. Johnson, Tampa, Fla., for buildings to be equipped as packing plant; structure will be 70x100 feet; truss roof with 70-foot span; concrete piers.

Fla., Ocala.—Farmers' Canning & Ice Co. organized with Amos W. Broseletson president, Atlanta, Ga.; will rebuild canning factory and ice plant. (See "Ice and Cold-storage Plants.")

Ga., Americus.—Ware Progress Co., Walter J. Ware, president, Dayton, O., will incorporate company with \$100,000 capital stock to operate proposed cannery to have capacity of 2500 cases per day; machinery ordered; Fred J. Strong of United States Canning Co. will be president and manager of new company. (Previously mentioned.)

N. C., Oriental.—Address Farmers' Can Co.; will establish cannery. (See "Machinery Wanted.")

Tex., Aransas Pass.—T. B. Wheeler contemplates establishing plant for canning, pickling and preserving vegetables.

CLAYWORKING PLANTS

Ark., Lockesburg.—Bricks.—A. N. Davidson and T. J. Williams will establish plant with daily capacity of 40,000 bricks; machinery purchased.

Ga., Dalton.—Bricks.—W. L. Sanderson (recently noted as considering establishment of brick plant) is general manager of Improved Brick & Stone Co., controlling Sanderson patent process for manufacturing bricks, and should be addressed at Byhalia, Miss.; states he is investigating cities in Georgia, South Carolina, North Carolina, Virginia and West Virginia as sites for brick plants using his process.

N. C., Raleigh.—Thomas T. Hay, Raleigh, reported to have purchased Raleigh Pressed Brick Co.'s plant.

Tex., Beaumont.—Tile.—Gulf States Brick Co., Newton R. Wilson, president, and Jennings Vandever, manager, reported to install hollow ware machinery to manufacture building tile and farm drain tile.

Tex., Taylor.—Bricks.—Central Manufacturing Co. will be incorporated with \$300,000 capital stock by L. Dupree Prewitt and W. C. Rivers, both of Elgin, Tex.; Ira A. Prewitt (president Prewitt Hardware Co.) and J. C. Duke, Dallas, Tex.; will acquire Prewitt Brick Co. and manufacture bricks.

Va., Abingdon.—Bricks.—Kings Mountain Brick Co., J. W. Jefferson, president, will erect sheds of ordinary construction at small cost; daily capacity 20,000 to 30,000 bricks.

(Recently reported incorporated with \$10,000 capital stock.)

COAL MINES AND COKE OVENS

Ala., Bridgeport.—Pierce Coal & Lumber Co. of Bridgeport and 663 Main St., Buffalo, N. Y. (recently noted incorporated with \$10,000 capital stock), will install mining machinery and equipment; also operate sawmill; Chas. H. Herger, president; U. Mott Pierce, vice-president; Jos. H. Morey, secretary; Raphael W. Pierce, treasurer; F. W. Pierce, manager. (See "Machinery Wanted.")

Ala., Lewisburg.—Gallacher Coal Co. will operate equipped plant of 800 tons daily capacity; James Gallacher, president, 1300 32d St., North Birmingham, Ala.; A. J. Clark, secretary; H. L. Morrow, treasurer. (Recently reported incorporated with \$25,000 capital stock under Birmingham, Ala.)

Ky., Alburt.—Alburt Coal & Coke Co. incorporated with \$25,000 capital stock by W. A. Young, Edgerton, W. Va.; William J. Harvie, John E. Biascoe, Claude E. Taylor and M. C. Pearson, all of Huntington, W. Va.

Ky., Pikeville.—Pike Collieries Co. will develop coal properties near McCarr, Ky.; output will probably be about 500 tons daily.

Ky., Walsend.—Continental Coal Corporation formed with \$6,000,000 capital stock to consolidate American Coal Land Co., Black Raven Coal Co., Straight Creek Coal & Coke Co., Straight Creek Collieries Co., Straight Creek Coal & Mining Co., Central Coal Co. and Leftfork Company; president and general manager, Earl Martin; vice-president and sales manager, H. L. Corey; secretary and treasurer, S. D. Le Seur, all of Chattanooga, Tenn., where Continental's main offices are located; properties comprise 30,000 acres land claimed to contain 300,000,000 tons coal, mining plants, 11-mile railway connecting with Louisville & Nashville Railway, etc. (Consolidation recently reported planned.)

Mo., St. Louis.—Missouri Coal & Land Co. incorporated with \$50,000 capital stock by D. G. Evans, Chas. A. Lemp and Geo. L. Edwards.

N. C., Asheville.—Virginia-Carolina Coal Co. incorporated with \$50,000 capital stock by W. J. Sproles, F. M. Messler and Fred C. Todd.

Va., Charlottesville.—Graves Coal Co. incorporated with James E. Irvine, president; W. E. Graves, secretary and treasurer; capital stock \$15,000.

W. Va., Charleston.—Paint Creek Collieries Co. organized to take over Paint Creek Company, New River Kanawha Fuel Co. and Mucklow Supply Co. properties; president, W. L. Connell; vice-president, J. K. Griffith; treasurer, T. J. Foster; secretary, David Cottle, all of Scranton, Pa., where company's main offices are located.

W. Va., Elkins.—Kentweva Coal & Lumber Co. chartered with \$50,000 capital stock by Charles S. Robb, R. Chaffey, M. W. Wilson and W. A. Pugh of Elkins and Merritt Wilson of Widdell, W. Va.; will hold certain Kentucky lands purchased by Mr. Robb and associates, who are also interested in Harlan Coal & Lumber Co. heretofore reported; Kentweva will probably eventually take over all properties of Robb and associates.

CONCRETE AND CEMENT PLANTS

Md., Baltimore.—Baltimore Siegwart Beam Co., S. A. Booth, secretary, 401 Builders' Exchange Bldg., awarded contract to Edward Ellert, 15 E. Lexington St., Baltimore, to erect main building, 55x155 feet, and costing about \$10,000; plans by J. E. Laferty, 11 E. Pleasant St., Baltimore. (Previously detailed.)

S. C., Columbia.—Columbia Concrete Co. incorporated with \$35,000 capital stock by W. B. Lowrance, J. D. Lowrance and B. J. Beckham; will manufacture cement blocks and tiles.

COTTON COMPRESSES AND GINS

Ala., Asheville.—J. H. Farizer contemplates erecting cotton gin, grist mill, sawmill and planing mill.

Ga., Moultrie.—Moultrie Oil & Fertilizer Co. incorporated by G. F. Taylor and others; will erect cotton gin. (See "Cottonseed-oil Mills.")

Ga., Hartsfield.—C. M. Dewberry will expend \$5000 on building and machinery for recently-noted cotton gin; machinery purchased; will erect building with galvanized

iron siding and roof. (See "Machinery Wanted.")

Okla., Red Fork.—Red Fork Gin & Milling Co. (recently noted incorporated with \$4000 capital stock) will operate cotton gin and grain mill; receive machinery proposals May 18; A. C. Brooks, president; Geo. W. Sawyer, vice-president, and F. A. Brown, secretary-treasurer.

Okla., Sapulpa.—Merchants' Cotton Gin Co. incorporated with \$10,000 capital stock by J. E. Goatee, F. A. Gates, B. M. Van Orman, Lester Katz and T. A. Wilson.

S. C., Barnwell.—Green & Holland will erect cotton gin.

Tenn., Memphis.—Tennessee Cotton Oil Co. proposes to gin and bale cotton. (See "Fertilizer Plants.")

Tex., Athens.—Farmers & Merchants' Gin & Milling Co. incorporated with \$10,000 capital stock by W. T. Jenkins, J. T. Larue, C. A. Spencer and M. E. Richardson.

Tex., Florence.—McDowell Gin Co. incorporated with \$8000 capital stock by W. N. Dowell, F. M. Hickman and J. E. Caskey.

Tex., Ganado.—McDowell Gin Co. incorporated with \$8000 capital stock by W. N. Fields, W. A. Shult and F. Dwiggans.

Tex., Harlingen.—Harlingen Compress Co. will erect 300x100-foot \$35,000 building; A. B. Slack, president; other officers not selected. (Recently reported incorporated with \$35,000 capital stock.)

Tex., Mercedes.—E. F. Rorke, Brownsville, Tex., will erect cotton gin; awarded contract to Smith & Reavis of Mercedes to erect building; main structure to be 40x92 feet, 1½ stories, and contain four gin stands; will also erect cottonseed warehouse, 40x60 feet, and cotton shed; cost about \$6000.

Tex., Port Lavaca.—W. E. Shell & Co. contemplate erection of eight-stand gin.

Tex., Rosser.—J. A. Robertson & Sons will erect cotton gin.

Tex., Rosser.—J. W. Brooks will erect cotton gin.

Tex., Sherman.—R. E. Smith will erect cotton gin.

Tex., Whitewright.—Whitewright Farmers' Union Co-operative Ginning Co. incorporated with \$6000 capital stock by E. Edens, J. L. Denton and A. C. Keeling.

COTTONSEED-OIL MILLS

Ala., Birmingham.—Butler & Kiser Manufacturing Co. will erect three buildings and two-story addition to pressroom; increase capacity of press plant from 3 to 9 presses; one building for office and warehouse; 65x75 feet; one-story; brick; composition roof; machinery building and seedhouse will be one and two stories; 55x130 feet and 55x120 feet, respectively; brick; composition roof; plans being prepared.

Ark., Mulberry.—Mulberry Oil Mill Co. organized with \$60,000 capital stock to rebuild cotton-oil mill; Dix Hamm, president; R. M. Johnson, secretary-treasurer. (Previously reported burned.)

Ga., Moultrie.—Moultrie Oil & Fertilizer Co. incorporated with \$75,000 capital stock by G. F. Taylor, R. J. Corbett, W. C. Vereen, A. Huber, P. D. Horkan, T. E. Williams and others; will establish cottonseed-oil mill, guano factory and cotton gin.

La., Harvey.—Swift & Co., Chicago, Ill., are progressing with construction of plant; daily capacity, 640 tonnes; located on tract of 37 acres; buildings include 115x52-foot oil refinery, three and four stories high, of brick and concrete, fireproof construction; two-story 128x61-foot packing and shipping building of mill construction, cooper shop, and boiler and engine room; as previously stated, George J. Glover, New Orleans, La., has construction contract; plant ready for operation about June 15; machinery and electrical work arranged for; cost of present improvements not less than \$250,000.

S. C., Blairs.—Blairs Cottonseed, Fertilizer & Mercantile Co. will be incorporated by D. M. Hoke, John T. Ragsdale of Greenville, S. C., and others with \$35,000 to \$50,000 capital stock to establish cottonseed-oil mill and fertilizer plant.

S. C., Rowesville.—Rowesville Cotton Oil Co., E. N. Chisolm, president, desires correspondence with architects relative to preparing plans for rebuilding cotton-oil mill recently reported burned; 100x100 feet; mill construction; will install machinery; daily capacity 40 tons of cottonseed products. (See "Machinery Wanted.")

Tenn., Jackson.—Madison Cotton Oil Co. will erect cottonseed oil mill; M. W. Ewell, Dyersburg, Tenn., will be manager; James L. Talbot will be superintendent and have charge of construction.

DRAINAGE AND IRRIGATION

Ark., Little Rock.—Commissioners Fourche Drainage District, W. M. Kavanaugh, president, will arrange for construction of proposed system to drain the Fourche bottoms, reclaiming several thousand acres subject to overflow and standing water; in addition to draining the Fourche bottoms it is planned to straighten stream and construct levees to protect surrounding lands from overflow.

La., New Orleans.—Commissioners Bayou Sale Drainage District will receive bids until June 6 for construction of levees, excavation of drainage canals, construction of pumping plant and such other work as is necessary to complete drainage of subdivisions 1 and 2 of Bayou Sale Drainage District; J. F. Coleman & Co., engineers, 929 Iberia Bldg., New Orleans. (See "Machinery Wanted.")

La., St. Bernard Parish.—G. W. Roth, New Orleans, La., representing Chicago (Ill.) capitalists, purchased 2000 acres marsh lands for subdivision and sale to Western farmers.

La., Plaquemine Parish.—D. J. Mackey, representing Coffeen & Co., Kansas City, purchased 50,000 acres Plaquemine and St. Bernard parish marsh and river front lands, about 22,000 acres being in St. Bernard; price reported as \$250,000; purchase was from Realty Investment Co., Sol Wexler, president, New Orleans, La.; no announcement as yet regarding proposed developments. Mr. Mackey also purchased "Modock Plantation," 15 miles north of New Orleans, and will develop and improve.

Okla., Enid.—Plumas Tunnel & Drainage Co., C. G. Smith, president, Box 1046, Aspen, Col., and also of Enid, was organized to drain, mine and explore Castle Peak Mountain in Colorado. (Recently noted.)

Tex., Houston.—Missouri-Texas Land & Irrigation Co., H. P. Hilliard, president and treasurer, is not an irrigation company, but a land proposition. (See "Land Developments.")

Tex., Mercedes.—American Rio Grande Land & Irrigation Co., Wm. E. Guy, president, will expend about \$100,000 on extension of canals as planned; these branch canals extending to about 6000 acres (not 30,000, as recently incorrectly reported).

ELECTRIC LIGHT AND POWER

Ala., Marion.—Marion Electric Co. incorporated with \$10,000 capital stock by T. J. Krouse, Emma L. Krouse and R. K. Coe.

Fla., Fort Meade.—Fort Meade Electric Co. incorporated with \$10,000 capital stock; purchased electric-light plant of S. T. Rivers and will operate; J. C. Fancey is president; A. B. Canter, treasurer; C. J. Wilson, secretary.

Fla., Palatka.—F. P. Clark, Jacksonville, Fla., petitioned City Council for 30-year franchise to light streets with electricity; proposes installation of plant to cost \$40,000 to \$50,000.

Fla., Jacksonville.—Electrical committee of Bond Trustees rejected bids for erection of foundations, superstructure and pier bulkheads of municipal electric-light power station, and decided not to readvertise for bids, but to take work over and complete station according to plans and specifications by Schofield Engineering Co. of Philadelphia, Pa., consulting engineer. (Call for bids recently noted.)

Ga., Marietta.—City voted issuance of \$20,000 electric-light bonds. Address The Mayor. (Previously mentioned.)

Ga., Tallulah.—Georgia Power Co., Atlanta, Ga. (C. Elmer Smith, president, York, Pa.), awarded contracts (through offices of Northern Contracting Co., Charles O. Lenz, chief engineer, 71 Broadway, New York) as follows: Towers, aggregating 2000, to American Bridge Co., 30 Church St., New York; 1,000,000 pounds 2-0 transmission copper conductor and 1,000,000 pounds 4-0 transmission copper conductor, to American Steel & Wire Co., Frick Bldg., Pittsburgh, Pa.; one part suspension type insulators with hardware, aggregating 21,000 units, to Ohio Brass Co.; two-part type insulator with hardware, aggregating 21,000 units, to R. Thomas & Sons Company; contract for electrical and hydraulic apparatus has not yet been awarded. (Georgia Power Co.'s extensive plans for developing 200,000 horse-power heretofore detailed.)

Ky., Jenkins.—Consolidation Coal Co., A. T. Watson, purchasing agent, Fairmont, W. Va., will develop water-power of Elkhorn Creek for transmitting electricity for light

and power in connection with Letcher and Pike county coal land developments heretofore detailed; has not yet decided definite plans for water-power-electrical plant; executive offices in Continental Trust Bldg., Baltimore, Md.

Ky., Nortonville.—Nortonville Traction Co., Frank E. Mohr, president, will erect electric plant for lighting.

La., Patterson.—Patterson Light & Power Co. incorporated with \$8000 capital stock; A. H. Thompson, president; W. D. Roussel, vice-president; C. S. Williams, secretary-treasurer; has let contracts for apparatus and supplies for electric-light plant for street lighting and commercial use. Anderson Offutt of New Orleans, La., is engineer, and has charge of construction work.

Miss., Waynesboro.—M. A. O'Dom, agent, is interested in installation of 1000-light dynamo; alternating current only.

Mo., Excelsior.—Excelsior Water, Gas & Electric Co. incorporated with \$500,000 capital stock by H. T. Henderson, S. W. Henderson and W. H. Pratt.

N. C., Charlotte.—Piedmont Traction Co., W. S. Lee, Jr., engineer in charge, awarded contract for electrical equipment, etc., for railway between Charlotte and Greenwood, S. C.; contract includes entire equipment for railways under contract for construction; electrical equipment to include transformers, trolley wires, switchboards, etc.; amount about \$300,000; contractor, Westinghouse Electric & Manufacturing Co., Pittsburgh, Pa.

N. C., Henderson.—Carolina Power & Light Co., Chas. E. Johnson, president, Raleigh, N. C., purchased electric-lighting plant at Henderson.

N. C., Wilmington.—Tidewater Power Co. has built proposed extension to boiler-room, is installing 440-horse-power boiler, and has arranged for delivery of 500-kilowatt rotary converter; was recently noted to make improvements. (See "Miscellaneous Factories.")

Okla., Guthrie.—State Board of Public Affairs awarded contract to S. E. Dunbar, Muskogee, Okla., to install heat, light, power and refrigerating plant at State Penitentiary; cost about \$25,000; Mr. Dunbar furnishes plans and superintends work; building will be erected by Mr. Dick, warden, with prison labor.

Okla., Oklahoma City.—Oklahoma Gas & Electric Co. will extend electric-light system to Britton at cost of about \$20,000; also east of State Fair grounds and to other sections of city.

Okla., Wetumpka.—City voted \$10,000 bond issue for extension of electric-light system and water-works. Address The Mayor.

S. C., Lexington.—Lexington Electric Light & Power Co., recently reported incorporated with \$10,000 capital stock, will establish electric-light plant at Barr's Mill; steam power will be used in addition to water power; construction begun. W. W. Barre is president.

Tenn., Manchester.—J. F. Boyd, D. D. Hicks, H. H. Trimble and E. C. and Joshua Huffman, Shelbyville, Tenn., purchased Riverside Mills property and propose to fully develop water-power; will rebuild dam and petition Board of Mayor and Aldermen for franchise to light city with electricity.

Tex., Glen Rose.—Woodford M. Davis, Box 53, Dallas, Tex., states arrangements are being made to finance company to construct hydro-electric plant; probably 1000 horse-power; work to be commenced before July 1. (Somervell County Commissioners recently noted to grant franchise to Mr. Davis as fiscal agent for interested parties, to construct dam across Paluxy River.)

Tex., Kingsland.—Colorado River Power Co. of Marble Falls, Tex., C. H. Alexander of Dallas, Tex., president, is reported to have selected site for constructing additional dam to develop 10,000 horse-power for operation in connection with Marble Falls plant; plans said to include transmission lines within radius of 150 miles, extending to San Antonio, Austin, Waco, Temple, Belton, Llano, Burnet and other cities.

Tex., McAllen.—Town granted franchise to A. L. Stang, El Campo, Tex., for electric-light plant.

Tex., Port Lavaca.—W. E. Shell & Co. contemplate construction of electric-light plant; plans not determined; company recently noted to petition City Commission for franchise for electric-light plant, etc. (See "Water-Works.")

W. Va., Grafton.—Grafton, Fairmont & Clarksburg Railway, Charles F. Sutherland, president, Morgantown, W. Va., will erect power-house.

W. Va., Sistersville.—City Clerk will re-

ceive bids until 6 P. M. May 15 for material, labor and construction of power-house for municipal water-works; plans and specifications on file with W. J. Alexander architect, New Martinsville, W. Va., and at Water Commissioner's office, Sistersville; certified check, \$500.

FERTILIZER FACTORIES

Ga., Hawkinsville.—Thompson Oil Mill Co. will add mixing plant to oil mill and cotton gin.

Ga., Moultrie.—Moultrie Oil & Fertilizer Co. incorporated by G. F. Taylor and others; will establish guano factory. (See "Cottonseed-oil Mills.")

Ga., Pelham.—Pelham Phosphate Co. will erect 80x350-foot and 100x450-foot buildings; contractors, W. T. Jay & Co., Shellman, Ga.; architect, Peter S. Gilchrist, Charlotte, N. C.; plant to manufacture sulphuric acid and acid phosphate; capacity about 15,000 tons of acid phosphate annually; J. L. Hand, president and manager; H. L. McDonald, vice-president; J. W. Parker, secretary-treasurer. (Recently noted to construct acid plant.)

S. C., Blains.—Blains Cottonseed, Fertilizer & Mercantile Co. will be incorporated by D. M. Hoke, John T. Ragsdale of Greenville, S. C., and others with \$35,000 to \$50,000 capital stock to establish fertilizer plant and cotton-oil mill.

Tenn., Memphis.—Tennessee Cotton Oil Co. (J. Myers, G. A. Morrison and others) amended charter authorizing it to manufacture fertilizer and gin and bale cotton.

FLOUR, FEED AND MEAL MILLS

Ala., Birmingham.—Western Grain Co., Edward Wilkinson, president, is interested. It is reported, in establishment of grain mill to cost about \$60,000; building to be of concrete, steel supported, equipped with concrete bins, etc.

Ga., Juliette.—Juliette Milling & Clover Manufacturing Co. contemplates improving plant; is installing additional machinery; capacity 10,000 bushels meal in 24 hours.

Okla., Red Fork.—Red Fork Gin & Milling Co., A. C. Brooks, president, will operate grain mill. (See "Cottonseed-oil Mills and Gins.")

FOUNDRY AND MACHINE PLANTS

Md., Baltimore.—Electrical Mechanical Instruments, etc.—Baltimore Machine Products Co. incorporated with \$90,000 capital stock to manufacture electrical mechanical instruments and cabinet work; continuation of Viaduct Electric Co.; Arthur P. Gorman, Jr., 804 Union Trust Bldg., is president; Edmund C. Mayo, vice-president and general manager; William R. Eareckson, secretary; Conway S. Hodges, treasurer.

Md., Hagerstown.—Boilers, etc.—New York Central Iron Works Co., D. E. Dempsey, president, main offices, Geneva, N. Y., is proceeding with plans for plant recently noted; cost and size of buildings not yet determined; main buildings to be of structural steel with slag roof; further plans, including cost of plant and date of opening building proposals, not yet ready for announcement.

N. C., High Point.—Cars.—Southern Car Co. reorganized with J. Elwood Cox, chairman board of directors; Waldo Morrison, president; Abram Cook, vice-president; E. T. Robinson, general manager; plant will be enlarged by erection of additional buildings of brick, steel and concrete, one of which will be 8x25 feet for drykilling; present capacity is 500 cars annually, which will be increased. (Company was lately stated to have increased capital stock from \$250,000 to \$300,000.)

Okla., Oklahoma City.—Tractor Plows.—Wood-Knight-Hawk Company incorporated with \$200,000 capital stock to manufacture tractor plows; H. D. Knight, president; J. B. Wood, vice-president; F. J. Hawk, secretary-treasurer. (Recently mentioned.)

Okla., Tulsa.—Oklahoma Iron Works, Oklahoma City, Okla., will, it is reported, establish foundry.

Okla., Vinita.—Machines.—Vinita Machine & Manufacturing Co. incorporated with \$10,000 capital stock by James A. Kenneigh, W. C. Drake, J. M. Burroughs and W. B. DeLue.

Okla., Muskogee.—Stoves.—Oklahoma Stove & Range Co. will operate plant previously described; has completed and equipped buildings; N. F. Hancock, president; C. D. McDaniel, vice-president and manager; W. T. Amls, secretary-treasurer; plant in North Muskogee. (Recently noted incorporated with \$50,000 capital stock.)

S. C., Spartanburg.—Gasoline Engine.—Southern Gasoline Engine Co. will establish

plant for manufacture of gasoline engines ranging from 1½ horse-power to 60 horse-power; W. D. Wilcox of Spartanburg, W. E. Glenn and William F. Robertson, both of Charlotte, N. C., are incorporators. (Recently reported incorporated with \$15,000 capital stock.)

Tenn., Chattanooga.—Gas Ranges, etc.—Vesta Gas Range & Manufacturing Co. succeeds Chattanooga Stove Co.; has all machinery supplied. (Recently reported incorporated with \$100,000 capital stock.)

Tex., Houston.—Welding, etc.—Texas Welding & Gas Compressing Co. will reorganize with \$10,000 capital stock; Dr. C. S. Preston, president.

Tex., Houston.—Orchard Heaters.—L. W. Fisher and F. H. Hammer, San Francisco, Cal., are promoting. It is reported, organization of company to manufacture orchard heaters.

Va., Bristol.—Dixie Foundry and Machine Works incorporated with \$50,000 capital stock; L. W. Searles, president; C. W. Umholtz, vice-president; C. F. Umholtz, secretary-treasurer.

GAS AND OIL DEVELOPMENTS

Ala., Tuscaloosa.—Tuscaloosa Natural Gas Co. petitioned City Council for franchise to furnish city with natural gas. Luther Maxwell is president.

Ark., Forrest City.—James McJunkin, representing Pittsburg capitalists, proposes development of gas and oil leases.

Fla., Fort Pierce.—City is considering bond issue of about \$15,000 for electric-light plant; F. M. Tyler, City Clerk.

La., Vinton.—Crater Oil Co., Ltd., incorporated with \$20,000 capital stock; T. H. Bass, president; L. T. Donnelly, vice-president; Randall Silverman, secretary-treasurer.

La., Vinton.—Guedry Oil Co. incorporated with \$25,000 capital stock to develop oil land in Vinton field; secured lease of 20 acres; George E. Guedry, president, New Orleans, La.; J. G. Martel, vice-president, Jennings, La.; John Gilmore, treasurer, New Orleans, La.; Joseph L. Block, secretary, Jennings, La.

Miss., Laine.—Pascagoula Development Co. completed organization with R. A. Farnsworth, president; J. B. Chlun, vice-president; J. R. Watts, secretary; Frank H. Lewis, treasurer; also increased capital stock from \$15,000 to \$30,000. (Recently stated to have awarded contract to D. J. Johnson for drilling oil well.)

Mo., Kansas City.—Southwestern Gas & Oil Co. incorporated with \$100,000 capital stock by N. Z. Johnson, A. B. Renick and A. Snowdon.

Okla., Bartlesville.—Commerce Oil Co. incorporated with \$10,000 capital stock by W. G. Carter, J. J. Curl and E. B. Carter of Bartlesville, and J. E. Henderson, Tulsa, Okla.

Okla., Tulsa.—Clifford B. Harmon of New York and William Graham of California are completing negotiations for purchase of oil properties from Charles Page of Tulsa; properties include 1800 acres land, with wells having daily production 2000 barrels oil, which will be increased to 3000 or 3500 barrels as soon as wells can be drilled; buyers said to plan construction of refinery with daily capacity 5000 barrels crude oil, plant costing probably \$2,000,000; will organize Phoenix Refinery Co. to build refinery; referring to sale, Mr. Page telegraphs Manufacturers Record as follows: "Papers being prepared and I consider deal is closed."

Okla., Tulsa.—Exeter Oil Co. incorporated with \$12,000 capital stock by J. S. Moffett, C. J. Wrightman and Gus L. Reed.

Okla., Tulsa.—Texarko Oil & Gas Co. incorporated with \$20,000 capital stock by J. R. Hill, F. L. Wolverton and E. B. Henderson.

Okla., Tulsa.—Phoenix Oil Co. incorporated with \$10,000 capital stock by Claude F. Tingly, William E. Page and Eugene D. Forquer.

Okla., Tulsa.—Luna Oil Co. incorporated with \$5000 capital stock by E. M. Arnold, F. W. Perry and S. C. Lawson.

Okla., Tulsa.—Lakeview Oil Co. incorporated with \$10,000 capital stock by Charles L. Hall, Sep Hall and Lamolne Hall.

Tex., Houston.—Gulf Oil Corporation, main offices at Pittsburg, Pa., will hold meeting of stockholders at Jersey City, N. J., on June 7 to consider issuing bonds for \$15,000,000; purpose is to fund unsecured indebtedness and refund present outstanding bonds.

W. Va., Clarksburg.—Nero Oil & Gas Co. incorporated with \$15,000 capital stock by B. A. Mann, Rock Sells, W. E. Muburn, L. J. McGee, G. P. Singer and others.

W. Va., Huntington.—M. H. Rowe Oil &

Gas Co. incorporated with \$5000 capital stock by M. H. Rowe, Ashland, W. Va.; A. M. Baldwin, J. W. Davis and Jeff Swan of Huntington and others.

W. Va., Parkersburg.—Washington Oil Co. incorporated with \$50,000 capital stock by Patrick McDonough, C. T. Dutton, T. J. Garity and others.

W. Va., Parkersburg.—Washburn Oil Co. incorporated with \$50,000 capital stock by Patrick McDonough, C. T. Dutton, T. J. Garity and others.

ICE AND COLD-STORAGE PLANTS

Fla., Miami.—Miami Ice & Cold Storage Co., W. M. Brown, president, increased capital stock from \$50,000 to \$100,000; contemplates installing additional ice machine and adding plant for manufacturing ice cream.

Fla., Ocala.—Farmers' Canning & Ice Co. organized with \$100,000 capital stock to re-build ice and canning plant; will also add crate mill, etc. Amos W. Broselton is president, Robert Q. Fuller vice-president, both of Atlanta, Ga., and W. H. Thomas of Ocala, secretary-treasurer.

Fla., Port Lauderdale.—Taylor Grocery Co., Newport, Tenn., is arranging to install ice plant and cold storage; will kill 1000 to 1500 hogs annually.

Miss., Waynesboro.—M. A. O'Dom, agent, is interested in contemplated establishment of 10-ton compression ice plant; no organization of company. (See "Machinery Wanted.")

S. C., Jefferson.—Jefferson Ice & Bottling Co., R. W. Shannon, president (recently reported incorporated with \$5000 capital stock), will install small ice plant.

Tex., Fort Stockton.—Wm. F. Zarbock and Charles A. Schroff of Cleveland, O., will operate ice plant.

Va., Danville.—Danville Ice Co. incorporated with \$300,000 capital stock to take over plant of Crystal Ice & Power Co.; no present enlargement contemplated; D. A. Overby, president; R. L. Dibrell, vice-president; W. W. Williamson, secretary and treasurer.

Va., Roanoke.—Griggs Packing Co. will erect cold-storage plant with capacity of 50,000 barrels apples; cost \$35,000; building to be four stories.

IRON AND STEEL PLANTS

Ala., Gadsden.—Steel Furnace.—Southern Iron & Steel Co., Brown-Marx Bldg., Birmingham, Ala., has begun operation of additional steel furnace.

Ala., Holt.—Iron Furnace.—Central Iron & Coal Co. has blown out Tuscaloosa iron furnace for repairs; New York office, 47 Wall St.

Okla., Oklahoma City.—Iron and Steel Products.—Imperial Iron & Steel Co. incorporated with \$100,000 capital stock by Mora C. Clark, R. H. Dorsey, E. J. DuPre, C. L. Colcord, J. M. Potelle and L. L. Klein; will continue present plant, and expects to manufacture 40,000 to 50,000 pounds of iron daily into completed product.

LAND DEVELOPMENTS

Ala., Mobile.—National Land & Orchard Co. will purchase, clear and plant cut-over land with pecan trees; controls 2900 acres in Mobile county, and contemplates ultimate sale of this land in five-acre tracts of 8 to 10-year-old trees; G. B. Hengen of Chicago, president; J. M. Rodger, secretary, and R. E. Gwinn, treasurer, both of Des Moines; general offices, 503 Securities Bldg., Des Moines, Iowa; E. H. Bixler, resident agent, Mobile. (Recently noted incorporated with \$100,000 capital stock.)

Fla., Fort Myers.—Barron Collier of New York purchased Useppa Island, hotel, etc., from John M. Reach, president Chicago Traction Co., Chicago, Ill., and associates.

Fla., Miami.—City contemplates voting on \$125,000 bond issue for parks, streets, sewers, docks, etc. Address The Mayor.

Fla., Orlando.—Munger Land Co. (recently noted under St. Joseph, Mo.) was incorporated with \$50,000 capital stock to develop Florida land; owns about 15,000 acres in Orange Center at present station of Engle farms; contemplates founding town of Orange Center, at present station of Englewood; plans park, hotel, school, church, store building and manager's residence; Willis R. Munger, president and general manager, with main office St. Joseph, Mo.; Len J. Munger, vice-president and resident manager, Orlando.

Fla., St. George's Island (not a postoffice). St. George Island Company, A. J. Smith, secretary, 1328 Candler Bldg., Atlanta, Ga., is proceeding with previously noted developments; dredging 700-foot channel to wharf; will erect wharf, pavilion and bathhouses, sink artesian well and build hotel; club mem-

bers contemplate erection of bungalows and cottages; club grounds planned by S. Z. Ruff, Atlanta, Ga.

Fla., St. Petersburg.—City will vote June 13 on \$15,000 bond issue for improving Lake Park. Address The Mayor.

Ga., Arlington.—American Orchard & Pecan Co. incorporated with \$100,000 capital stock by J. S. Cowart and J. E. Toole of Arlington; I. A. Fulwood, Tifton, Ga., and Arthur E. Gringle, Indianapolis, Ind.

La., Madison Parish.—A. M. Smith, Helena, Ark., purchased Talla Bena Plantation in Madison parish; 2300 acres of farming land, of which 1700 acres are in cultivation; purchase price, \$75,000; reported that property will be improved.

Miss., Washington County.—L. K. Salisbury, Memphis, Tenn., and associates purchased 5000-acre plantation in Washington county for \$200,000; 4000 acres in cultivation and 1000 acres in timber. (Mr. Salisbury and others recently reported as organizing two \$1,500,000 corporations to develop cotton land in Washington and Bolivar counties.)

N. C., Charlotte.—Misenheimer Land & Investment Co. incorporated with \$125,000 capital stock by J. J. Misenheimer, C. A. Misenheimer, R. L. Gibbon and others.

N. C., Clarendon.—Dixie Land Co. organized to develop 12,000 to 15,000 acres of land in Columbus county; plans to improve property by draining and dividing into small farms, etc.; reported that about \$500,000 will be invested.

N. C., Durham.—R. H. Wright, W. J. Griswold and others are interested in development of residential section and amusement resort; property to cost \$40,000; contemplate erection of clubhouse.

N. C., Fayetteville.—North Carolina Orchards Co. incorporated with \$350,000 capital stock by W. E. House, Holley, N. Y.; J. S. Manning and R. O. Everett, Durham, N. C.; will develop 10,000 acres by growing peaches, berries, truck, cotton and corn.

N. C., Lenoir.—Hibriten Park Company incorporated with \$50,000 capital stock by W. C. Newland, T. C. Robbins, J. H. Beall, H. C. Martin and others; to establish summer resort on peak of Hibriten Mountain, about 2000 feet above sea level; construct road from Lenoir to peak and erect hotel.

Okla., Guthrie.—Guthrie Townsite Co. incorporated with \$20,000 capital stock by Chas. H. Lamb and Lulu B. Lamb of Clinton and William M. Anderson of Oklahoma City.

Okla., Tulsa.—City will vote in about 30 days on \$100,000 bond issue for further purchase of park sites; T. C. Hughes, City Engineer.

Tenn., Chattanooga.—Woodland Park Land Co. incorporated with \$40,000 capital stock by J. S. Rodriguez, R. H. Hunt, W. T. Tyler, A. W. Chambliss and E. S. Newton.

Tenn., Memphis.—M. E. McLaughlin and associates purchased 300 acres for about \$60,000; will divide into 5 and 10-acre tracts and develop as country home subdivision.

Tenn., Nashville.—Bransford Realty Co., Johnson Bransford, president, purchased "Maplewood," comprising about 500 acres; property will be platted, improved with parks, etc.

Tex., Alvin.—Alvin Land & Development Co. incorporated with \$10,000 capital stock by W. J. Hodard, G. L. Teat, Edward Ebner and A. G. Kassabaum.

Tex., Cotulla.—W. H. Millikin, Tulsa, Okla., purchased J. R. Black ranch, comprising 22,000 acres, for \$400,000; various improvements are contemplated, including construction of concrete dam across Nueces River, drilling artesian wells and building of 300-mile railroad between Eagle Pass and Aransas Pass.

Tex., Fort Worth.—Texas Co-operative Investment Co. will be organized with William Capps, president; C. C. Hayes, vice-president, and W. B. Townsend, secretary; capital stock \$2,000,000; property to be purchased will be divided into small tracts and colonized.

Tex., Fort Stockton.—W. M. Grant, Room 41, Merrell Bldg., 1900 W. 25th St., Cleveland, O., purchased several hundred acres of land to be developed in 20 and 40-acre tracts.

Tex., Carrizo Springs.—Carrizo Springs Development Co. incorporated with \$40,000 capital stock by J. R. Bratton, A. M. Delcambre and J. M. Eskridge.

Tex., Houston.—Missouri-Texas Land & Irrigation Co. has organized with H. P. Hilliard president and treasurer, Henry L. Borden vice-president and general manager, Chas. S. Oliver secretary, S. A. Robertson consulting engineer, San Benito, Tex.; plans for developing property not determined. Mr. Hilliard was noted in January to purchase 61,000 acres of land in Hidalgo county,

land to be subdivided and colonized. Mr. Robertson (consulting engineer) advises Manufacturers Record that 40-acre tracts will be formed and wagon roads built; also probably an 18-mile railway. (Several times previously mentioned, and under "Drainage and Irrigation" recently noted incorporated with \$1,000,000 capital stock.)

Va., Danville.—Danville Corporation incorporated with W. P. Boatwright president, J. T. Watson vice-president, R. L. Peerman secretary; capital stock, \$50,000.

Va., Harrisonburg.—Town will vote May 30 on expenditure of \$25,000 for park and approach to Baltimore & Ohio Railroad depot. Address Town Clerk.

W. Va., Martinsburg.—Cumberland Valley Orchard Co. incorporated with \$50,000 capital stock by O. M. Ramsey, Walter W. Trout, G. W. McKown, N. Poole and others.

W. Va., Wheeling.—Lentox Land Co. incorporated with \$25,000 capital stock by S. P. Norton, G. W. Norton, Nelson C. Hubbard, George A. Feeny and T. C. McKinley.

W. Va., Wheeling.—Beech Glen Land Co. incorporated with \$50,000 capital stock by S. P. Norton, G. W. Norton, N. C. Hubbard, George A. Feeny and J. C. McKinley.

LUMBER MANUFACTURING

Ala., Bridgeport.—Pierce Coal & Lumber Co., Chas. H. Herger, president (recently noted incorporated with \$10,000 capital stock), will operate sawmill of 15,000 feet daily capacity. (See "Coal Mines and Coke Ovens.")

Ala., Conecuh County.—Alger-Sullivan Lumber Co., Detroit, Mich., purchased 50,000 acres timber land at \$2,250,000; has mills at Alger, Fla.

Ark., Ouachita County.—Deere & Co., Moline, Ill., have, it is understood, awarded contract to Allis-Chalmers Company, Milwaukee, Wis., for erection of plant for daily capacity of 100,000 feet hardwood lumber; to include drying sheds and kilns; extensive storage facilities, etc.; owns 34,000 acres timber land. Allis-Chalmers Company telegraphs Manufacturers Record that plans are not sufficiently complete for publication.

Fla., Taylorville.—Edge-Dowling Lumber Co., E. E. Edge, president, will expend about \$100,000 on plant recently noted to be rebuilt; erect circular-saw mill with gang and edger; daily capacity 50,000 feet; daily capacity planing mill 25,000 feet; machinery mainly purchased.

Ga., Athens.—Athens Lumber Co. incorporated with \$20,000 capital stock by T. W. and R. B. Baxter.

Ky., Catlettsburg.—John E. McCall and M. B. Collinsworth purchased, it is reported, timber land for \$50,000.

La., Rayville.—Green Bros. Lumber Co., Edw. B. Green, president, has all machinery supplied for plant recently noted purchased and to be enlarged.

La., Ville Platte.—Bowman-Hicks Lumber Co. will erect sawmill; develop land for farming after timber is cut.

Miss., Braxton.—Smith-Payne Lumber Co., recently reported incorporated (under Pelahatchie, Miss.) with \$30,000 capital stock, has purchased and is installing machinery to operate plant with daily capacity of 40,000 feet yellow pine; cost of plant, complete, \$10,000; A. L. Purvin, president; T. J. Smith, vice-president and manager; J. L. Ross, secretary-treasurer.

Miss., Floweree.—Dunn & Blackney, Brownsville, Pa., purchased timber land and will develop; install logging equipment.

Miss., Claiborne County.—Link-Newcomb Mills & Lumber Co., Bentonla, Miss., is proceeding with construction of plant in Claiborne county; mill building is 36x90 feet and filling-room 18x48 feet, all two stories; wood and concrete construction; band mill is being installed and two miles of standard-gauge tramroad built; operation contemplated for June 1; plant to cost \$25,000 and have daily capacity of 25,000 feet. (Previously noted.)

Miss., Meridian.—Anchor Planing Mill incorporated with \$10,000 capital stock by R. F. Darrah, L. D. Myers and others.

Miss., Moss Point.—Waddle & Jones Company, Ltd., Gibson, La., has contracted with W. Denny & Co. of Moss Point for all down timber along Pascagoula and Northern Railroad; timber will be manufactured into crossties.

Miss., Sumter (not a postoffice).—Sumter Lumber Co., Meridian, Miss., will install new plant at point 37 miles north of Meridian; town to be called "Sumter"; is proceeding with installation of machinery; plant to be electrically driven; two nine-foot band mills; also 52-inch gang; drykilns and planing mill; contracts placed for erection

of reinforced concrete and steel sawmill; sawmill and electrical machinery contracts let.

Miss., Tunica County.—Coldwater Timber Co. organized by Gayoso Lumber Co. and Dooley-Stern Lumber Co., both of Memphis, Tenn.; purchased timber on 2000 acres of land in Tunica county for \$30,000 and will develop.

Mo., St. Louis.—Boeckeler Lumber Co. increased capital stock from \$15,000 to \$250,000. N. C., Asheville.—Scull & Lambert purchased hardwood on 10,000 acres from S. Montgomery Smith, 35 American National Bank Bldg.; now operating on nearby tract.

N. C., Bakersville.—R. W. Cox, Gate City, Va., purchased timber land in Mitchell county and will develop; will establish band mill.

N. C., Roxboro.—Caltolina Land & Lumber Co., main office to be Virgilina, Va. (recently noted incorporated with \$50,000 capital stock and to purchase 1036 acres of timber land in Person county), has not completed plans for buildings and equipment; J. M. Caltoln, president, Bostic, N. C.; John R. McClure, vice-president, Euflaula, Ala.; D. W. Early, secretary, Zebulon, N. C.; W. T. Caltoln, treasurer and manager, Shelby, N. C.

S. C., Georgetown.—Georgetown Lumber Co. increased capital stock from \$10,000 to \$40,000.

S. C., Salem.—Salem Lumber Co. incorporated with \$5000 capital stock by William Quitt, J. E. Coburn and B. S. Childress.

Tenn., Chattanooga.—McLean Lumber Co. telegraphs Manufacturers Record that company will erect plant at estimated cost of \$50,000; daily capacity 40,000 feet lumber; build 40x110-foot steel and concrete structure; reinforced concrete floors; metal clad on roof and sides; machinery to include 8-foot band mill for 12-inch saws, heavy log carriage with set steam works, 12-inch shotgun feed, etc.; all construction and machinery contracts awarded.

Tenn., Jackson.—Kenney Bros. Company, Frankfort, Ky., will probably rebuild saw and planing mill reported burned at loss of about \$7000.

Tenn., Memphis.—Robe Lake Lumber Co. incorporated with \$100,000 capital stock by Irby Bennett, J. W. R. Thompson, J. H. Finlay, Thomas A. Cassette and George Harsh.

Tenn., Memphis.—Shelby Export Lumber Co. organized by W. H. Moore and John Henry; offices in Memphis Trust Bldg.

Tenn., Union.—Clear Fork Lumber Co., James Mansel, president, acquired property of Bradshaw Lumber Co., including 6000 acres timber land, yards, band mill, 12 miles narrow-gauge railroad, etc.; spruce, hemlock and hardwood timbers; daily capacity of mill, 50,000 feet; will use steam skidder and loaders.

Tex., Beaumont.—Beaumont Lumber Co. increased capital stock from \$100,000 to \$150,000.

Tex., Canyon City.—Citizens' Lumber Co. incorporated with \$15,000 capital stock by C. H. Money, E. H. Ackley, I. C. Hicks and others.

Tex., Pineland.—Temple Lumber Co. will install plant to manufacture ties and timbers; work begun; other improvements will also be made.

W. Va., Elkins.—Kenweva Coal & Lumber Co. chartered with \$500,000 capital stock by Charles S. Robb, R. Chaffey, M. W. Wilson and W. A. Pugh of Elkins and Merritt Wilson of Widdell, W. Va.

W. Va., Ferrellsburg.—Bigley Lumber Co., Point Pleasant, W. Va., purchased 1000 acres of timber land for \$15,000 and will develop; sawmill included in purchase.

MINING

Ala., Gantt's Quarry.—Marbles.—Alabama Marble Co., John Stephen Sewall, vice-president and general manager, is proceeding with previously-noted rebuilding of plant; is repairing and rebuilding damaged machinery and making some additions; contemplates full operation before July 1.

Ark., Yellville.—Zinc.—Morning Star Co., Wilmington, Del., incorporated with \$200,000 capital stock; purchased Morning Star zinc mine in Northern Arkansas; E. Zimmerman, Rush, Ark., is State agent; contemplates immediate development.

Ga., Rocky Face.—Sand.—Rocky Face Silica Sand Co., recently incorporated with \$100,000 capital stock, will install machinery for crushing plant of 500 tons daily capacity. (See "Machinery Wanted.")

Ky., Lawrenceburg.—Stone and Sand.—Kentucky River Stone & Sand Co. incorporated with \$15,000 capital stock by E. W. Ripley, William Edwards and J. C. Ripley.

Ky., Louisville—Stone.—Independent Quarry Co., John N. Krommüller, president, 256 Spring St. (recently reported incorporated with \$3500 capital stock), will develop seven acres of land; daily capacity, 40 perch building stone, 300 feet curb and 200 yards crushed. (See "Machinery Wanted.")

Mo., Galena—Lead and Zinc.—F. M. Parkers and associates will, it is reported, reopen and further develop Hoosier mining property.

Mo., Joplin—Neely Mining Co. Incorporated with \$24,000 capital stock by Edward N. Cunningham, John A. Waterhouse, George R. Clay and others.

Mo., Joplin—Lead and Zinc.—Senator Mining Co. Incorporated with \$100,000 capital stock by William J. Deboe, Marion, Ky.; James Shirley and R. T. Pitkin, both of Joplin, and E. F. Judkins, Webb City, Mo.

Mo., Joplin—Lead and Zinc.—Merton Park Land & Leasing Co. Incorporated with \$50,000 capital stock by O. D. Boyse, W. F. Shannon, H. V. Smoot and others.

Mo., Joplin—Zinc and Lead.—Dunham & Howerton Mining Co., 124 Keystone Hotel, will develop 80 acres lead and zinc lands recently noted. (See "Machinery Wanted.")

Mo., Kansas City—Marble.—Voska-Bremer Marble Co. Incorporated with \$50,000 capital stock by William C. Bremer, Emanuel V. Voska and F. J. Dietrich.

Mo., St. Louis.—Wrisberg Mining & Milling Co. Incorporated with \$60,000 capital stock by Charles G. Wrisberg, John Weingart, Lawrence McDaniel and others.

Mo., Webb City—Lead.—Home Land & Loan Co., A. D. Hatten, manager, will develop lead ore deposits on 80-acre tract at Villa Heights.

Mo., Webb City—American Zinc, Lead & Smelting Co., J. H. Polhemus, general superintendent, will, it is reported, erect mill with capacity of 1500 tons a shift.

Okl., Granite.—American Red Rose Granite Co., Thos. L. Eggleston, president, Washington, D. C., is not ready to announce completed plans; is erecting \$25,000 steel cutting and finishing shed and polishing plant for working red rose granite; will install granite cutting and finishing machinery to cost \$125,000. (Recently noted incorporated with \$500,000 capital stock.)

Okl., Muskogee—Sand and Gravel.—Nelson Sand & Gravel Co. Incorporated with \$50,000 capital stock by Andrew S. Nelson, Louis Peck and Alex. C. Nelson.

Okl., Muskogee.—Mid-West Mining & Development Co. Incorporated with \$250,000 capital stock by A. C. Lawrence and D. B. Drake, both of Muskogee; L. L. Pilcher, Bartlesville, Okla., and William Smiley, Roosevelt, Okla.

Tenn., Columbia—Phosphate.—Consolidated Phosphate Co., Geo. W. Killebrew, president, advises Manufacturers Record that arrangements for operation are not yet completed; will develop about 500 of acres. (Consolidation and incorporation with \$700,000 capital stock previously noted.)

MISCELLANEOUS CONSTRUCTION

Ark., Little Rock—River Improvements.—Little Rock Packet Co. will deepen and straighten channel of Arkansas River; secured right to use Kerr-Gablon system of river improvements from River Rail & Harbor Construction Co. of Jackson, Miss.; John Lorenz will be manager of construction department to be established by Little Rock company.

Fla., Boca Grande—Dock.—Boca Grande Terminal Co. is proceeding with construction of proposed terminal plant to cost \$250,000; lumber slip dock, 100 feet long and 200 feet wide, is under construction; bulkhead is being built on bay side, extending 200 feet from shore to dock; phosphate bin and belt conveyor with capacity of 6000 tons daily is completed and in operation; company is doing its own construction work.

Fla., Miami—Docks, etc.—City contemplates voting on \$125,000 bond issue for docks, parks, sewers, streets, etc. Address The Mayor.

Fla., St. Petersburg—Water-front Improvements.—City will vote June 13 on \$35,000 bond issue for purchase and improvement of water-front lots. Address The Mayor.

Miss., Gulfport—Docks, etc.—Gulfport Terminal & Shipping Co. Incorporated with \$250,000 capital stock by H. C. Elder and B. E. Eaton, both of Gulfport, and J. T. Jones, Buffalo, N. Y.

Okl., Oklahoma City—River Improvements.—Oklahoma county is arranging for proposed straightening and deepening of river bed in Canadian River to prevent overflow on adjacent lands; in all about 23 miles of river bed will be improved; W. C. Burke, City Engineer, is preparing report on work

within city and County Surveyor for work in county; cost in city is estimated at \$400,000 and in county at \$300,000.

S. C., Charleston—Coal Piers.—If Interstate Commerce Commission gives to Carolina, Clinchfield & Ohio Railway certain privileges asked in way of low freight rate on export coal, company will immediately begin construction of coal-handling terminals to cost about \$500,000. It has been announced Interstate Commerce Commission has granted privileges, but Manufacturers Record is advised that Clinchfield company will not be able to proceed until it learns whether all details are satisfactory. Construction will doubtless be undertaken in name of Holston Corporation, recently mentioned in this connection. Mark W. Potter, chairman, of Carolina, Clinchfield & Ohio Railway, 24 Broad St., New York, can give particulars.

S. C., Columbia—Monument.—William E. Gonzales, secretary Women's Monument Committee, will receive bids until noon May 24 for construction of concrete foundations and granite platform of four courses of gray Southern granite for monument to Women of the Confederacy to be erected on Main and Senate Sts.; each proposal to be accompanied by certified check for 10 per cent. of bid; plans and specifications on application.

Tex., Orange—Canal.—A. C. Wilkins, Jennings, La., recently noted to construct five-foot levee and canal, states that work is in connection with construction of public highway, through sea marsh, between Orange and the Vinton (La.) oil field; levee has been built four feet above tidewater and having 18-foot crown; approximate cost of work, \$10,000; L. F. Daniels, engineer in charge, Beaumont, Tex.; dredging part of work about completed.

W. Va., New Martinsville—Lock and Dam. Bids received until June 5 for constructing lock and dam No. 15, Ohio River; F. W. Alstaetter, Major, Engineers, Wheeling, W. Va. (See "Machinery Wanted.")

MISCELLANEOUS ENTERPRISES

Ala., Birmingham—Automobiles.—Birmingham Auto Co. Incorporated with \$2000 capital stock; Ben Boshwitz, president; W. F. Bell, secretary-treasurer.

D. C., Washington.—Richey Telephone Lock & Call Register Co. Incorporated with \$100,000 capital stock by Charles V. Richey, Edward H. Booth, 717 21st St. N. W., Washington, D. C.; Robert T. Ward and R. Wilson Nicolle, both of Baltimore, Md.

D. C., Washington—Breweries' Supplies.—Nielson Breweries' Supply Co. Incorporated with \$300,000 capital stock by Carl M. Nielson, Charles J. Hueter, 718 6th St. N. W., both of Washington, and Charles G. Guyer.

Fla., Tampa—Coal-handling Plant.—Edwards Construction Co. has arranged with Seaboard Air Line Railway (W. L. Seddon, chief engineer, Portsmouth, Va.) to construct and operate on coal docks of railway terminals a coal-handling plant to discharge coal-laden vessels arriving for Seaboard Railway; machinery ordered.

Ga., Dalton—Printing.—A. J. Showalter Company decided to increase capital stock from \$40,000 to about \$60,000 and to rebuild burned plant on enlarged scale; new buildings are to be of mill construction. (Recently mentioned.)

Ga., Macon—Transportation.—Macon & Brunswick Navigation Co. reorganized with capital stock increased from \$15,000 to \$65,000; A. E. Chappell is president.

Ky., Bardstown—Flowers.—Bardstown Road Floral Co. Incorporated with \$8000 capital stock by Pratt A. Reynolds, H. J. Marshall and Margaret H. Struck.

Ky., Hopkinsville—Laundry.—Model Laundry & Cleaning Co. Incorporated with \$10,000 capital stock; William Kimmons, president; Mrs. W. H. Pritchett, treasurer; W. H. Pritchett, manager; machinery purchased; brick building is being erected.

Ky., Lexington—Builders' Supplies.—Builders' Supply Co. Incorporated with \$10,000 capital stock by S. A. Reynolds, C. E. Reese, George A. Sudduth and others.

Ky., Louisville—Caskets.—Globe Casket Co. Incorporated with \$100,000 capital stock by S. Oppenheimer, J. A. Schuessler and J. M. Chatterton.

Ky., Nicholasville—Construction.—Bluegrass Construction Co. Incorporated with \$5000 capital stock by John McClure, C. S. Woodward and Richard Hagar.

Ky., Wolf Creek—Packet Company.—Ohio Valley Packet Co. Incorporated with \$15,000 capital stock by Richard M. Smith, William Kelley and Charles F. Robbins.

La., New Orleans—Coal-carrying Canal.—Joseph H. Hoadley, president Alabama Con-

solidated Coal & Iron Co., 105 Broadway, New York, telegraphs Manufacturers Record that Lake Borgne Canal has been purchased by Hoadley-Shaw syndicate; plans are being completed for large navigation company for freighting coal from Tuscaloosa on Warrior River to New Orleans and Mobile, Ala.; unconfirmed reports state canal purchase price was \$1,000,000 and that canal will be merged with consolidation of Alabama Consolidated Coal & Iron Co. and Southern Iron & Steel Co. of Birmingham. (Details of merger now being planned.)

Md., Baltimore—Tile, etc.—International Tile & Mosaic Co. Incorporated with \$5000 capital stock by Samuel L. Ruley, 2000 N. Payson St.; Louis J. Roth, 419 Gaither Estate Bldg., and others.

Mo., Kansas City—Engineering.—Robert M. McCandlish Engineering Co. Incorporated with \$5000 capital stock by Robert M. McCandlish, Robert J. Fleck and Laurid Jorgensen.

Mo., Kansas City—Construction.—J. B. Nevel Sons Construction Co. Incorporated with \$2000 capital stock by J. B., E. B. and H. L. Nevel.

Mo., Kansas City—Fire-alarm System.—City awarded contract to Alexander Kinghorn, 302 Reliance Bldg., to erect \$7000 tower over market-house; central police alarm system to be installed; plans by Root & Siemens.

Mo., St. Louis—American Co-operative Union Supply Co. Incorporated with \$5000 capital stock by William S. McAdam, Louis A. Ragan and John P. McDonough.

Mo., St. Louis—Bricklaying.—L. Wismann Bricklaying & Contracting Co. Incorporated with \$3000 capital stock by A. L. Wismann, A. W. Wismann and Jas. C. Wismann.

Mo., St. Louis—Publishing.—River Publishing & Investment Co. Incorporated with \$25,000 capital stock by Alexander Lops, Robert A. Shanka, William J. Nott, John E. Leublin and William E. McGrath.

Mo., St. Louis—Garage.—Harry Jost awarded contract to James E. Powers to erect garage; 40x80 feet; steam heat; metal ceiling and 56 feet of metal skylight. (Recently noted.)

Mo., St. Louis—Electrical Contracting and Supplies.—Ganahl Electric Co. Incorporated with \$2000 capital stock by Hubert J. Ganahl, Eric A. Kurgas and Octavia L. Ganahl.

Okl., Hobart—Printery.—Hobart Republican Printing Co. Incorporated with \$10,000 capital stock by John D. Appleby, W. R. Nichols, C. G. Long and others.

Okl., Marlow—Publishing.—Marlow Publishing Co. Incorporated with \$6000 capital stock by T. T. Eason, A. M. Thompson, John S. Graham, P. V. Rabb, O. R. McKinney, T. L. Wade and W. B. Anthony.

Okl., Oklahoma City—Construction.—J. L. Buck Construction Co. Incorporated with \$100,000 capital stock by J. L. Buck and J. C. Buck, Texola, Okla., and C. W. Buck, Shamrock, Tex.

Okl., Sulphur—Laundry.—Sulphur Laundry Co. increased capital stock from \$7500 to \$10,000.

Tenn., Memphis—Publishing.—Elkdom Publishing Co. Incorporated by Frank P. Coleman, J. J. Mason, J. D. Celia and others.

Tenn., Memphis—Grain Elevator.—Cherokee Commission Co. will not erect elevator; contemplates erection of warehouse next fall. (Recent report incorrect.)

Tenn., Memphis—Garage.—Memphis Automobile & Garage Co. Incorporated with \$150,000 capital stock by J. W. Falls, R. H. Lake, N. C. Perkins and others.

Tenn., Nashville—Garage.—Hager-Elliott Engineering Co., E. O. Elliott, president, awarded contract to George Moore & Sons to erect garage; 75x175 feet; two stories; fire-proof construction; cost \$15,000; cost of machinery (purchased), \$10,000. (Recently noted.)

Tex., Christine—Lumber and Hardware.—Christine Lumber & Hardware Co. Incorporated with \$10,000 capital stock by Johnson Griffith, B. B. Daugherty and M. L. Eck.

Tex., Houston—Engineering and Construction.—Specialty Engineering Co., 514 Chronicle Bldg., organized to construct Thompson garbage crematory (patented); also general construction; David M. Dilles, president and manager; John N. Murphy, vice-president; Geo. M. Duncan, secretary-treasurer. (Recently reported incorporated with \$25,000 capital stock.)

Tex., Portland—Seaside Resort.—John B. Willacy, Corpus Christi, Tex., advises Manufacturers Record that surveys, plans and estimates for various proposed improvements at Portland are not yet completed; improvements to be permanent. It is reported that Chas. P. Taft of Cincinnati and associates have authorized expenditure of \$600,000 this

year for building park and auto driveway, terracing bluff on bay coast, constructing docks, etc.; also reported that water-works and electric-light systems will be installed; Mr. Willacy in charge. (Previously noted under "Miscellaneous Enterprises," "Sewer Construction," "Water-works," "Hotels," etc.)

Va., Coeburn—Printery.—Coeburn Printing Co., A. P. Crockett, president, will issue the Miners' Journal; equipment practically supplied; was recently noted incorporated with \$10,000 capital stock. (See "Machinery Wanted.")

Va., Norfolk—Fire-alarm System.—Board of Control awarded contract to Gamewell Fire Alarm Telegraph Co. of New York at \$2225 to furnish fire-alarm system for old wards of city; equipment will include storage battery and repeater switchboard mounted with white marble and combination electro-mechanical gong and indicator; awarded contract to same company at \$1750 for furnishing fire and police signal system for Ninth ward.

Va., Norfolk—Confectionery.—Harris-Woodson-Barbee Company Incorporated with \$50,000 capital stock; H. H. Harris, president, Lynchburg, Va.; T. A. Woodson, vice-president; H. G. Barbee, secretary-treasurer, both of Norfolk.

Va., Petersburg—Dairy.—Hatcher Seward is having plans prepared by M. P. Andrews, Petersburg, for dairy; 34x131 feet; silos 16 feet in diameter, 26 feet high; to accommodate 50 cows; frame and stucco; steam heat; electric lighting; bids opened May 9.

W. Va., Charleston—Publishing.—Mountain Leader Publishing Co. Incorporated with \$5000 capital stock by C. W. Boyd, J. F. J. Clark, T. C. Nutter, Frank Boyle and others.

W. Va., Parkersburg—Transportation.—Ohio & Mississippi Packet Co. Incorporated with \$25,000 capital stock by M. L. Noll, Marietta, O.; B. S. Pope, J. C. McConnell, R. F. Sherwood and Dorr Casto, all of Parkersburg.

MISCELLANEOUS FACTORIES

Ala., Birmingham—Metal Beds, Springs, etc.—Birmingham Bed Co., John W. S. Jones, president and treasurer, 901 40th St., succeeds Birmingham Sanitary Bed & Manufacturing Co. (in name, with additional capital); manufactures metal beds, bedsprings, couches and cots. (Recently noted incorporated with \$25,000 capital stock.)

Ala., Gadsden—Bottling.—Alabama Coca-Cola Bottling Co., Anniston, Ala., has machinery for building at Gadsden; 50x50 feet; ordinary construction; cost \$3050; contract recently noted awarded to Little & Clecker, Anniston; daily capacity, 500 dozens coca-cola, etc.

Ala., Montgomery.—Macon County Turpentine Co. Incorporated with \$2000 capital stock by Thomas Galloway, Wetumpka, Ala., and E. Tripp and H. Hooks, Tuskegee, Ala.

Ala., Wilmer—Syrup.—Mobile Pure Syrup & Farming Co. Incorporated by Henry Brannan, T. H. Brannan, R. L. Whitley, H. A. Tanner and Wilmer Grocery Co.; will manufacture syrup and plant sugar cane.

Ark., Booneville—Gas.—Booneville Oil & Gas Co. applied for franchise for gas works; also contemplates construction of water-works.

Ark., Conway—Brooms.—Central Broom Manufacturing Co. is company recently noted to be established by J. Hayden and J. S. Munns to manufacture brooms; machinery supplies; capacity, 20 dozen brooms daily. (See "Machinery Wanted.")

Ark., Rogers—Leather.—E. A. Zander & Son, Buchanan, Mich., will, it is reported, establish plant for manufacturing leather and kid gloves.

Ark., Rogers—Marble and Granite.—C. O. Mitchell, Bentonville, Ark., will erect building to be equipped as marble and granite works.

Fla., Key West—Gas.—City Council granted gas franchise to John C. Reed and C. E. Starr, Philadelphia, Pa. (Recently mentioned.)

Fla., Tampa—Cigars.—Berriman Bros. are having plans prepared by Bonfoey & Elliott of Tampa for addition to cigar factory; three stories and basement; 50x80 feet; cost about \$30,000.

Ga., Macon—Rail Joints.—Hatfield Rail Joint Manufacturing Co. is name of corporation proposing manufacture of rail joints; secretary-treasurer is J. F. Scott, Room 210 at 11 Broadway, New York. (Lately mentioned.)

Ky., Carrollton.—T. B. Forbes, J. F. Butts, James Gayle, J. P. Wheeler and others purchased three-story building, 70x104 feet, and will, it is reported, equip for manufacturing purposes.

Ky., Carter-Ballast.-Poplar Ballast Co. incorporated with \$30,000 capital stock by J. F. Lewis, W. F. Cartee, R. J. Ramsey and W. F. Wilson.

La., Franklin-Sugar.-Vilroy Sugar Co. John D. Bell, president, has purchased machinery costing about \$40,000; will operate plant with daily capacity of 600 tons; erect structural steel building costing about \$12,000. (Recently noted organized with \$100,000 capital stock.)

La., Guy-Naval Stores.-Spivey-Gay Co., J. H. Spivey, president, will continue established plant; naval stores. (Recently noted incorporated with \$30,000 capital stock.)

La., Mooringsport-Oil Refinery.-Webster Refining Co. incorporated with \$25,000 capital stock; C. D. Webster, president, Orange, Tex., and J. E. Croom, secretary, Mooringsport.

La., New Orleans-Lard and Oil Refineries, etc.-Swift & Co., Chicago, Ill., are, it is reported, planning expenditure of several million dollars for construction of stockyards, lard and oil refineries, and ultimately packing plant; rumor states plan contemplates importing cattle from Mexico, Argentina and other countries.

Md., Baltimore-Placket Holder.-Label Placket Holder Co. incorporated with \$100,000 capital stock by Edmund T. Bates, 421a Equitable Bldg.; John Sirianni and Gerald Hill.

Md., Baltimore-Cigars.-Southern Cigar Co. incorporated with \$25,000 capital stock by Henry Mordecai (Interstate Cigar Co. of Maryland), 501 Hoffman Bldg.; Herbert Q. Mordecai and Philip S. Ball.

Md., Baltimore-Electro-clocks.-Electro-Clock Co., 115 Mercer St., elected F. P. Bassett president; A. J. Woodworth, Sparrows Point, Md., vice-president; Sidney C. Vincent, secretary and manager; J. G. Johansen, treasurer. (Recently noted to lease, remodel and equip building for electro-clock factory.)

Mo., Excelsior.-Excelsior Water, Gas & Electric Co. incorporated by H. T. Henderson and others. (See "Water-works.")

Mo., Hume.-Town voted to grant gas franchise to J. S. Connelly of Bates County Natural Gas Co., Rich Hill, Mo.

Mo., Kansas City-Paint.-Hughes-Edelin Paint Co. incorporated with \$25,000 capital stock by A. M. Hughes, W. J. Edelin and Charles Cook.

Mo., St. Louis-Medicines, etc.-American Reelpe Co. incorporated with \$10,000 capital stock by Benjamin A. Suppan, Dora Suppan and William Kempf.

Mo., St. Louis-Automobile.-Dorris Motor Car Co. will, it is reported, erect addition to plant at cost of about \$250,000.

Mo., St. Louis-Foot Supports.-Diamond Foot Support Co. incorporated with \$10,000 capital stock by W. Peters, Charles H. Peters and R. August Sudholt.

Mo., St. Louis-American Medicine Co. incorporated with \$30,000 capital stock by Jos. Jaques, Beverly B. Deems and Charles J. Anderson.

Mo., St. Louis-Shirts.-Murray Carleton, president Carleton Dry Goods Co., will erect two-story shirt factory costing \$50,000.

Mo., St. Louis-Candy.-Opal Candy Co. incorporated with \$9000 capital stock by John Catsigianis, John Mayrakas and Wm. A. Buhlinger.

Mo., St. Louis-Dental and Surgical Supplies.-O'Brien-Worthen Dental & Surgical Supplies Co. incorporated with \$350,000 capital stock by Joseph P. O'Brien, Herman G. Walzendorf, James J. Humes, Van L. Runyon and others.

Mo., St. Louis-Corsets.-Brock Corset Co. incorporated with \$10,000 capital stock by William R. Brock, Cornelia Brock and Charles A. Truitt.

N. C., Charlotte-Cotton-mill Supplies.-Dixie Spindle & Flyer Co. incorporated with \$10,000 capital stock by T. H. Hall, E. P. Coles and T. M. Costello.

N. C., Wilmington-Gas.-Tidewater Power Co., Hugh Macrae, president, will install six-foot water-gas set to be used in connection with present coal-gas plant; erect additional holder of 150,000 cubic feet capacity and install 10,000-gallon oil tank; will lay about two miles additional gas mains within next two months; for letting of contracts and all improvement details address consulting engineer, W. W. Randolph, 165 Broadway, New York; improvements to be completed during summer; also making power-house extension and building three 50-foot motor-equipped cars for use on suburban line between Wilmington and Wrightsville Beach. (Recently noted.)

Okla., Frederick-Carburators.-Bustard Carburator Co. incorporated with \$10,000 cap-

ital stock by Paul Bustard, H. L. Roberts and S. N. Gosnell.

Okla., Oklahoma City.-Nu-Flake Cereal Co. incorporated with \$100,000 capital stock by E. M. Lisle, A. M. Morrill and M. F. Miller.

S. C., Anderson-Medicine.-R. L. T. Co. incorporated with \$25,000 capital stock by J. M. Richardson, J. R. Vandiver and J. D. Hammett.

Tenn., Chattanooga-Candy.-Brock Candy Co. awarded contract to J. H. Rawlings, 914 Bennett Ave., Chattanooga, to erect addition to factory; four stories and basement; brick; cost \$11,000.

Tenn., Chattanooga-Bakery.-Cameron & Barr incorporated with \$25,000 capital stock by John B. Cameron, James Barr, William Barr and others.

Tenn., Knoxville-Hardware.-Moore Hardware Co. purchased site with frontage of 87 feet and will erect additional buildings.

Tenn., Knoxville-Candy.-Littlefield & Steere Company, A. H. Steere, president, purchased site at West Clinch Ave. and 2d St., and contemplates establishment of candy factory; building to cost about \$40,000.

Tenn., Memphis-Extracts.-Weilka Manufacturing Co. incorporated with \$50,000 capital stock by B. F. Witsell, W. A. Witsell, H. N. Brawley, F. H. Hoof and J. W. Cunningham.

Tex., Austin-Toilet Articles.-Solar Chemical Co., R. W. Brown, president, 1301 New York Ave. N. W., Washington, D. C., is considering establishment of plant for manufacturing toilet articles; also proposes to build paper-box factory.

Tex., Brenham-Gas.-O. C. Orbeck, Clifton, Tex., petitioned City Council for franchise for gas plant.

Tex., Bryan-Candy.-Company organized with \$3500 capital stock to manufacture candy; leased two-story brick building and will equip; C. H. Holmes, president; W. O. Holmes, secretary; J. L. Edge, treasurer; J. S. R. Smith, general manager.

Tex., Cameron-Creamery.-Cameron Creamery, R. L. Tyson, president (recently reported incorporated with \$6000 capital stock), will continue operation of equipped plant.

Tex., El Paso-Cigars, etc.-Kohlberg Bros. will erect building; three stories; reinforced concrete; fireproof; cost \$27,000; plans by Trost & Trost of El Paso.

Tex., Gainesville-Gloves, etc.-Cherokee Glove Co. will establish factory recently noted; no building to be erected; machinery purchased; will manufacture cotton gloves, ladies' aprons and bonnets; Arthur Teague, president; S. Zacharias, vice-president; O. L. Rash, secretary; S. M. King, treasurer.

Tex., McKinney Springs (not a postoffice).-Continental Wax Co., Little Rock, Ark., will establish wax factory; capacity, 60 tons of raw material (candelilla plant) and refining of two tons of wax.

Tex., Navasota-Creamery.-Navasota Creamery & Ice Cream Co. incorporated with \$5000 capital stock by R. A. Horlock, R. W. Horlock and J. W. Schumacher.

Tex., San Benito.-San Benito Sugar Manufacturing Co. has begun erection of sugar mill; capacity 1300 tons daily; cost about \$250,000. (Recently stated to have contracted for mill and crusher.)

Tex., Victoria-Bakery.-J. W. Sample will erect building for J. E. Cunningham; structure will be equipped as bakery.

Tex., Waco-Stalk Cutters.-Lee Richards is promoting organization of company to establish plant for manufacturing stalk cutters.

Va., Roanoke-Stamp Moistener.-A. J. Hoback, Jr., will manufacture patented sanitary stamp moistener. (See "Machinery Wanted.")

Va., Roanoke-Tramways.-Consolidated Tramway Co. will erect one-story shop building to cost \$3000.

Va., Salem-Medicine.-Acid Iron Mineral Co. incorporated with \$30,000 capital stock; J. P. Killian, president; J. H. Garst, vice-president; F. L. Shelor, secretary; reorganized company and removed plant from South Carolina; manufactures concentrated extract from Mississippi acid iron ore.

Va., Suffolk-Chemicals.-Capmetone Chemical Co. incorporated with T. L. Hart, president; J. I. Seneca, vice-president; W. H. Nurney, secretary and treasurer; capital stock \$15,000.

W. Va., Huntington-Paint.-Ashland Paint Co. incorporated with \$25,000 capital stock by H. A. Schaub, J. M. Hawkins, H. E. Pilcher, E. D. Mercer and F. B. Thornburg.

ROAD AND STREET WORK

Ala., Fort Payne.-Town will construct certain cement sidewalks and gutters; bids received until May 15; H. A. McSpadden, Town Clerk. (See "Machinery Wanted.")

Ala., Gadsden.-City opened bids May 8 on 2600 square yards sidewalk and 2100 feet granite curbing on 1st, 4th and Chestnut Sts.; will let contracts for about 4000 feet five-foot sidewalk about June 8; Chas. L. Marsh, City Engineer, Box 275. (See "Machinery Wanted.")

Ala., Marion.-Perry county will vote June 19 on issuance of \$100,000 of bonds for road construction. Address County Commissioners.

Ala., Mobile.-Board of Public Works ordered \$25,000 bond issue for completing sidewalks in paved district; Wright Smith, City Engineer.

Ark., Jonesboro.-City will receive bids until May 15 for grading about 70,000 cubic yards; Thomas Burriss, Mayor. (See "Machinery Wanted.")

Ark., Little Rock.-Relative to construction of continuous macadam highway across State, distance of 230 miles, Governor Geo. W. Donaghey, Little Rock, advises Manufacturers Record that the House has passed bill providing for road from Little Rock west to Fort Smith, 160 miles, passing through Pulaski, Faulkner, Conway, Pope, Johnson, Franklin, Crawford and Sebastian counties; this bill is now pending in Senate; improvement district to river on south and three miles along road on north is provided; this to be taxed to pay cost of construction; second highway connects with this road at Little Rock, extends to State farm in Lincoln county by way of Pine Bluff; Gov. George W. Donaghey, John M. Davis of Clarksville and W. A. Falconer of Fort Smith, Ark., are members Board of Commissioners; bill pending provides for use of 100 State convicts.

Ark.-Tex., Texarkana.-City will pave State Line Ave. from Front to Broad St. with creosoted wood blocks. Address The Mayor.

Fla., Jacksonville.-Duval County Commissioners rejected bids for asphalt macadam resurfacing of about 1 1/2 miles of Atlantic Blvd. and of St. Johns Ave. from city limits to McGirts Creek and will readvertise for bids. Commissioners awarded contract to Engineering & Paving Co. of Jacksonville to resurface portion of Lem Turner Rd.; Gail L. Barnard, County Engineer, Room 9, Courthouse. (Call for bids recently noted.)

Fla., Miami.-City contemplates voting on \$125,000 bond issue for streets, sewers, parks, docks, etc. Address The Mayor.

Fla., St. Petersburg.-City will vote June 13 on \$5000 bond issue for street crossings and \$35,000 for extension of brick paving. Address The Mayor.

Ga., Atlanta.-City awarded contract to Thornton & Mayson of Atlanta at \$2.65 per square yard to pave with wood block North Blvd. from Ponce de Leon Ave. to 10th St.; about 8250 square yards; R. M. Clayton, chief engineer of construction. (Call for bids recently noted.)

Ga., Augusta.-City contemplates constructing cement sidewalks on both sides of D'Arignac St. from Jackson St. to Railroad Ave., and on both sides of Hopkins St. from Jackson to Cumming St. J. J. O'Connor, Mayor pro tempore.

Ga., Marietta.-Cobb County Commissioners will petition Legislature for authority to vote on \$300,000 bond issue for road improvements. Address County Commissioners.

Ga., Waycross.-City will pave about two miles of streets; paving to be on Reynolds St. and Albany Ave. Address The Mayor.

Ky., Maysville.-Mason county will construct road from J. B. Steers' to Hill City extension; bids opened May 13; J. O. Pickrell, chairman. (See "Machinery Wanted.")

Ky., Mt. Sterling.-City Council recommended acceptance of bids of J. H. Shoup Company, Dayton, O., for paving 12,000 square yards paving; vitrified blocks and concrete base; contract price, \$1.73 per square yard.

La., Estherwood.-City will construct 2000 feet of sidewalk. Address The Mayor.

Md., Westminster.-Carroll county will construct section of State-aid highway on Black Rock Rd. between Hampstead and Baltimore county line, 1.12 miles; bids received until May 15; George W. Brown, J. S. Fink and Benj. F. Stansbury, Board. (See "Machinery Wanted.")

Md., Frederick.-City will pave about 16,000 square yards and set about 8500 linear feet curbing; bids opened May 24; J. Edward Schell, Mayor; E. C. Crum, City Engineer. (See "Machinery Wanted.")

Md., Towson.-Baltimore county will grade and macadamize about 3400 feet of Boyce Ave.,

ninth district; bids opened May 18; Henry G. Shirley, County Roads Engineer. (See "Machinery Wanted.")

Miss., New Albany.-Union county will construct 130 miles of roads; bids received until May 15; W. G. Bias, chairman Road Commission. (See "Machinery Wanted.")

Miss., Bay St. Louis.-Hancock county has issued \$25,000 of bonds for road improvements. Address County Commissioners.

Miss., Columbus.-City will receive bids until May 22 for construction of approximately 6000 feet concrete curb and gutter or granite curb and concrete gutter; E. S. Donnell, Mayor; C. L. Wood, engineer; previously noted. (See "Machinery Wanted.")

Miss., Collins.-Covington County Supervisors awarded contract to Boyd & Bradshaw at \$3410.25 to construct 18 miles of road.

Mo., Kansas City.-Park Commissioners awarded contract to E. H. Bradbury to grade 40th St. between Kenwood Ave. and Holmes St.

N. C., Hamlet.-Town voted \$5000 bond issue for street improvements. Address The Mayor.

N. C., Lenoir.-Hibriten Park Co. incorporated by W. C. Newland and others; contemplates construction of road from Lenoir to peak of Hibriten Mountain. (See "Land Developments.")

N. C., Wadesboro.-Anson county defeated bond issue for county road improvements; H. B. Allen, chairman Road Commission. (Amount previously noted, \$300,000.)

Okla., Hugo.-City will pave business streets with creosote pine blocks. Address The Mayor.

S. C., Sumter.-City will expend \$3000 to \$4000 in paving N. Washington St.; L. D. Jennings, Mayor. (Recently noted.)

Tenn., Chattanooga.-City awarded contract to West Construction Co. of Chattanooga at \$93,172.16 to pave with asphalt-macadam roadways of Duncan Ave. from Cemetery Ave. to Lyerly St., Chamberlain Ave. from Belt Railway to Kelley St., Union Ave. from Greenwood to Lyerly St., Vance Ave. from Greenwood to Lyerly St., Kirby Ave. from Greenwood to Lyerly St. and Highland Park Ave. from McCalle to George St.; R. B. Henderson, chairman Board of Public Works. (Recently mentioned.)

Tenn., McMinnville.-Warren county defeated \$150,000 bond issue to extend five roads, lately completed, to county line. Address County Commissioners. (Recently mentioned.)

Tex., Brady.-Precinct No. 1 of McCalloch county will vote on about \$100,000 bond issue for road improvements. (Previous \$75,000 bond issue illegal.) Address County Commissioners.

Tex., Gonzales.-Commissioners' Precinct No. 1 of Gonzales county contemplates voting on \$150,000 bond issue for road construction. Address County Commissioners.

Tex., Quitman.-Wood county voted \$30,000 bond issue for road improvements. Address County Commissioners.

Tex., Sterling City.-Sterling county voted \$16,000 bond issue for road construction. Address County Commissioners.

Va., Leesburg.-Leesburg and Washington Good Roads Association, Robert N. Harper, Washington, D. C., president, will be incorporated with \$50,000 capital stock to further building of recently-noted road between Washington and Leesburg; civil engineer will have charge; no contract for work as a whole; H. H. Trundle, Leesburg, member of executive committee. (See "Machinery Wanted.")

Va., Lynchburg.-City is considering \$600,000 bond issue, \$150,000 of which is to be expended for reinforced concrete bridge over James River and balance for street improvements; H. L. Shaner, City Engineer.

Va., Lynchburg.-City will pave Jefferson St. from 9th to Washington St.; bids received until May 17; H. L. Shaner, City Engineer. (See "Machinery Wanted.")

Va., Marion.-Rich Valley District of Smyth county voted \$100,000 bond issue for road construction. Address County Commissioners.

Va., Portsmouth.-Government awarded contract to Field, Barker & Underwood, Philadelphia, Pa., at about \$25,000 for paving in navy-yard as follows: Sloat St., 3 blocks; Renshaw Ave., 3 blocks; Shubrick St., 1 block, and Berrien St., 2 blocks; work includes 9000 yards of brick paving, 2500 feet concrete curbing, 1000 yards granolithic sidewalks and 1000 feet railway track. S. B. Waring is engineer in charge.

Va., Portsmouth.-City awarded contract to Atlantic Bitulithic Co., Richmond, Va., at \$136,028.30 to pave streets with bitulithic.

Va., Richmond.—Street committee approved issue of \$1,000,000 of bonds for street improvements; Charles E. Bolling, City Engineer.

W. Va., Huntington.—Cabell county will vote May 27 on issuance of \$300,000 of bonds to improve main county roads with asphaltum, brick, stone, granite block, macadam or other material; F. F. McCullough, clerk County Commissioners.

W. Va., Ronceverte.—City will vote on \$100,000 bond issue for paving Railroad Ave. and several cross streets with brick. Address The Mayor.

SEWER CONSTRUCTION

Ala., Auburn.—Town will construct about 7423 feet of eight-inch sanitary sewers; bids received until May 15; G. N. Mitcham, engineer, Auburn; R. W. Burton, Town Clerk. (See "Machinery Wanted.")

Ala., Ensley.—Board of Revenue of Jefferson county accepted plans by L. H. Salter, county sanitary engineer, for septic tank; concrete; cost \$25,000 to \$50,000; bids received until May 22. (See "Machinery Wanted.")

Ala., Oxford.—City will vote May 22 on \$12,000 bond issue for improvement of sewer system. Address The Mayor.

Ala., Pollard.—City will construct sewer system. Address The Mayor. See "Water-works."

Fla., Fort Pierce.—City is considering bond issue of from \$20,000 to \$40,000 for sewer system; F. M. Tyler, City Clerk.

Fla., Miami.—City contemplates voting June 27 on \$125,000 bond issue for streets, sewers, parks, docks, etc. Address The Mayor.

Fla., Pensacola.—City awarded contract to J. W. Gurley & Co., Mobile, Ala., at \$25,763 and \$11,469, respectively, to construct 15,060 linear feet storm-water drains from 66 to 10 inches in diameter and 23,880 linear feet of sanitary sewers from 24 to 6 inches in diameter; John A. Merritt, chairman bond trustees; George Rommel, Jr., engineer. (Recently mentioned.)

Fla., St. Petersburg.—City will vote June 13 on \$5000 bond issue for sewers. Address The Mayor.

Ga., Collegepark.—City has engaged Doak & McKechnie of Greenville, S. C., as engineers in charge of installation of sewerage and water-works.

Ga., Marietta.—City voted \$15,000 bond issue for sewer construction. Address The Mayor. (Previously mentioned.)

Ga., Thomaston.—City voted \$50,000 bond issue for construction of sewer system and water-works. Address The Mayor. (Recently mentioned.)

Ga., Unadilla.—Town contemplates construction of sewer system; has engaged C. F. Wagner, representing J. B. McCrary & Co., Atlanta, Ga., to prepare topographical map of town and estimate cost of construction.

La., Shreveport.—City will construct storm sewer on Southern Ave. from Mildred St. 750 feet south; bids opened May 9; L. H. Baker, secretary-treasurer.

Md., Baltimore.—City will receive bids until May 24 for constructing sanitary lateral sewers in District 36-A and for erection of office and laboratory building at Back River disposal works; Charles England, chairman Sewerage Commission; Calvin W. Hendrick, chief engineer Sewerage Commission, Room 904 American Bldg. (Bids for erecting office and laboratory building were previously received and rejected. (See "Machinery Wanted.")

Md., Frederick.—City will construct about 400 linear feet sewers (6 to 42 inches), together with inlets, manholes and lampholes; bids received until May 24; J. Edward Scheil, Mayor; E. C. Crum, City Engineer. (See "Machinery Wanted.")

N. C., Thomasville.—Water-works Commission, Chas. F. Lambeth, secretary, will construct sewerage system; will let contract at once. (Board of Aldermen recently stated to have voted issuance of \$75,000 of bonds at present and \$50,000 more after June assessment for sewer system and water-works.)

Okla., Oklahoma City.—City will construct various lateral sewers; bids received until May 15; Rob Parmar, City Clerk. (See "Machinery Wanted.")

Okla., Tulsa.—City will vote in about 30 days on \$200,000 bond issue for sewer extension and construction; T. C. Hughes, City Engineer.

Okla., Tulsa.—City will construct sanitary lateral sewer in Crosbie Heights Addition and submains in city; bids received until May 15; T. C. Hughes, City Engineer. (See "Machinery Wanted.")

S. C., Rock Hill.—City awarded contract to Sullivan, Long & Hagerty, Bessemer, Ala., at \$52,675.10 to construct sewer system; about 16 miles of 6, 8, 10 and 12-inch sewers, 215 manholes, 35 flush tanks, etc.; Thomas W. Cothran, engineer, Greenwood, S. C., and 119 Hampton St., Rock Hill. (Call for bids recently noted.)

Tenn., Cleveland.—Legislature authorized issuance of \$50,000 sewer bonds. Address The Mayor.

Tex., El Campo.—City will extend sewer system to El Campo Heights. Address The Mayor.

Tex., Itasca.—City contemplates construction of sewer system. Address The Mayor.

Tex., Mount Pleasant.—City will vote June 2 on \$16,000 bond issue for constructing sewer system; J. V. Moore, Mayor.

Tex., Slaton.—City is considering installation of sewerage system; J. S. Edwards, Mayor. (See "Water-works.")

Tex., Waco.—City Commission is considering \$80,000 bond issue for construction of additional sanitary and storm sewers; P. A. Gorman, Street Commissioner. (Recently mentioned.)

W. Va., Ronceverte.—City will vote on \$5000 bond issue for extension of sewer and water systems. Address The Mayor.

TELEPHONE SYSTEMS

D. C., Washington.—American Telephone & Telegraph Co., 15 Dey St., New York, advises Manufacturers Record that underground telephone line between Washington and New York will be ready for use probably by early fall; 100-mile stretch of conduit from Washington to Wilmington, Del., practically completed; during summer company will draw in and splice new cable from Washington to Philadelphia, to connect with existing underground cable between Philadelphia and New York. (Previously announced plans.)

Ga., Moultrie.—Moultrie Telephone Co. purchased telephone system to Funston, Ga.; will replace ground circuit service with metallic service and extended system to Hartsfield.

N. C., Spencer.—Southern Bell Telephone & Telegraph Co. (main offices, Atlanta, Ga.) will rebuild Spencer plant at cost of about \$18,000; will replace magneto plant now in use with common battery, construct several miles of cable, including cable to Salisbury, etc.; work in charge of J. L. Moore, division plant superintendent at Charlotte, N. C.

N. C., Townsville.—Northwestern Telephone & Telegraph Co., G. W. Marrow, president and general manager (recently noted incorporated with \$10,000 capital stock), is constructing 150 to 200-mile rural line; work progressing; no contracts to be let.

N. C., Westfield.—Big Creek Telephone Co. incorporated with \$10,000 capital stock by J. C. Frans, R. L. Nunn and J. H. Wright.

Okla., Bushyhead.—Farmers' Rural Telephone Co. incorporated with \$250 capital stock by W. R. Rogers, Bushyhead; W. J. Strange, W. A. Howard and J. A. Johnson, Chelsea, Okla.

S. C., Gaston.—Farmers' Mutual Telephone Co. organized with W. B. Fallaw, president; J. H. Price, vice-president; D. M. Craft, secretary; W. D. Pound, treasurer; contemplates constructing telephone system from Gaston to Swansea and other cities in vicinity.

Tex., Bryan.—Bryan Telephone Co. contemplates installing flashlight system.

Va., Fredericksburg.—M. G. Willis awarded contract to E. G. Hedlin of Fredericksburg to erect building to be equipped as telephone exchange and office building by Bell Telephone Co.

TEXTILE MILLS

Ga., Augusta.—Sheetings, etc.—John P. King Manufacturing Co. will increase capital stock (\$1,000,000) by issuing preferred stock for \$400,000; now has 60,384 ring spindles, 1512 looms, etc.

Ga., Barnesville.—Cotton Cloth.—Aldora Mills will erect 100x240-foot two-story brick building and install looms; reported as to expend \$150,000; power from local transmission of electricity; now has 10,000 spindles, etc.

La., New Orleans.—Denims, etc.—Lane Cotton Mills Co. states it has no additional buildings in contemplation. (Recent report not correct.)

Mo., St. Louis.—Oilcloth.—National Oilcloth Co., William Nesbitt, president, will not be ready to announce plant details for about eight weeks; daily capacity, 24,000 yards oilcloth. (Recently reported incorporated with \$75,000 capital stock.)

N. C., Double Shoals.—Hosiery Yarns.—

Double Shoals Cotton Mills will improve water-power plant; engaged James Leffel & Co., Springfield, O., as engineers in charge.

N. C., Lenoir.—Hosiery.—J. W. Hollingsworth is interested in plan to install hosiery knitting machinery; has not bought equipment. (See "Machinery Wanted.")

S. C., Edgefield.—Print Cloth.—Parker Cotton Mills Co., Greenville, S. C., will make few minor additions to Beaver Dam Mills; latter has 10,120 ring spindles, 322 broad looms, etc.

Tex., Brenham.—Sheeting.—Brenham Cotton Mills will reorganize, install new machinery, etc.; now has 5000 spindles, 171 looms, etc.

WATER-WORKS

Ala., Pollard.—City will construct water-works and sewer system; will install pipe six inches in diameter to depth of 800 to 1000 feet, where it is expected to secure flow of water which will rise to height of 60 feet from ground; water will flow into tank of about 25,000 gallons capacity. Address The Mayor.

Ark., Bonneville.—Bonneville Oil & Gas Co. contemplates construction of water-works and gas plant; applied for franchise.

Fla., Fort Pierce.—City is considering bond issue of about \$25,000 for water-works; F. M. Tyler, City Clerk.

Fla., St. Petersburg.—City will vote June 13 on issuance of \$5000 of bonds for extension of water-works. Address The Mayor.

Ga., Collegepark.—City has engaged Doak & McKechnie, Greenville, S. C., as engineers in charge of installation of water-works and sewerage.

Ga., Thomaston.—City voted \$50,000 bond issue for construction of water-works and sewerage system. Address The Mayor. (Recently mentioned.)

Ky., Henderson.—City reported to rebuild or reline with waterproof concrete a reservoir of 5,000,000 gallons capacity. (Previously noted contemplating installation of water-filtering plant.)

Ky., Owensboro.—City awarded contract to R. P. Farnsworth Company for concrete and L. M. Booth Company for machinery to rebuild, Columbus, O.; capacity of plant, 3,000,000 gallons; work to be completed by September 15. (Mentioned in March.)

Ky., Somerset.—United Water, Light & Traction Co., J. L. Waddle, general manager, will expend about \$25,000 on water-works; capacity, 100,000 gallons; has reservoir; will construct dam, add new pump and build filtering or clarifying system; date of opening bids not settled. (Previously noted incorporated with \$100,000 capital stock.)

La., Homer.—City has engaged H. W. Wright, Homer, to prepare plans for water-works recently noted; will receive bids until May 15 for material; G. G. Gill, clerk. (See "Machinery Wanted.")

La., White Castle.—City awarded contract to David Lopez of White Castle to construct 2000 feet of water main on lower Bowie St.; contract to furnish material also awarded.

Miss., McComb.—Illinois Central Railroad, A. S. Baldwin, chief engineer, Chicago, Ill., purchased, it is reported, 150 acres of land on which to construct reservoir.

Md., La Plata.—After June 1 Board of Town Commissioners will make plans for recently-noted water-works; \$15,000 bond issue voted; artesian well contemplated; J. D. Robertson and F. B. Matthews, members of Board.

Mo., Excelsior.—Excelsior Water, Gas & Electric Co. incorporated with \$500,000 capital stock by H. T. Henderson, S. W. Henderson and W. H. Pratt.

Mo., Moberly.—City awarded general contract for reconstruction of water-works to Commercial Construction Co., Kansas City, Mo., at \$23,323, and \$1 per cubic yard for extra concrete and 40 cents per cubic yard for extra earth excavation; awarded contract for power-house to G. A. Sinclair, Moberly, at \$7991; plans by Rollins & Westover, Kansas City, Mo. (Previously mentioned.)

N. C., Clayton.—Gilbert C. White, Durham, N. C. (recently noted as preparing plans), states that, pending vote on bonds, plans are indefinite.

N. C., Concord.—City will construct water-works recently mentioned; Board of Water and Light Commissioners will receive bids until 3 P. M. May 31; auxiliary pumping station; about two miles cast-iron pipe; reinforced concrete 1,000,000-gallon sedimentation reservoir and coagulating basin; 1,000,000-gallon filter plant; Gilbert C. White, engineer, Durham, N. C. (See "Machinery Wanted.")

N. C., Morganton.—City voted \$35,000 bond issue for water-works. Address The Mayor.

N. C., Spencer.—Southern Railway, D. W.

Lum. chief engineer, Washington, D. C., has begun construction of proposed water-works system, obtaining increased water supply from Yackin River; installing two centrifugal force pumps at pumping station on river three miles from Spencer and water will be piped to city; pumps have capacity of 40,000 gallons per hour each; company is also erecting tank with capacity of 200,000 gallons.

N. C., Thomasville.—City voted issuance of bonds, \$75,000 at present and \$50,000 after June assessment, for construction of water-works; J. B. McCrary & Co., Atlanta, Ga., have contract for construction. (Recently mentioned.)

Okla., McAlester.—City's water-works plans include capacity of plant, 500,000 gallons daily; 7½ miles six-inch pipe, two boilers and one pump—contract let; 57-foot dam, concrete lined on inner slope, concrete retaining wall, cost \$50,000—contract not let; \$80,000 to be expended; W. P. Halliday, City Engineer. (Recently noted.)

Okla., Oklahoma City.—City awarded contract to Hunter & Hunter of Oklahoma City at \$12,987.60 to construct sedimentation basin at water-works pumping station; basin will be 200 feet long, 100 feet wide and 12 feet deep; will increase capacity of plant about 3,000,000 gallons daily; V. G. Shinkle, Superintendent of Water Department. (Recently mentioned.)

Okla., Tulsa.—City Commissioners instructed Commissioner Wheatley of water department to have plans and specifications prepared for sedimentation basin at water-works to have capacity of from 6,000,000 to 7,500,000 gallons of water; estimated cost, \$25,000; L. J. Martin, Mayor. (City recently stated to improve water-works at cost of about \$100,000.)

Okla., Wetumka.—City voted \$10,000 bond issue for extension of water-works and electric-light system. Address The Mayor.

Tenn., Cleveland.—Legislature authorized issuance of \$10,000 water bonds. Address The Mayor.

Tenn., Nashville.—City will lay 41,737 feet of water mains during present year; bids for construction will be received until May 16; \$40,000 appropriated; pipe purchased; W. W. Southgate, City Engineer.

Tenn., Newport.—City will construct gravity system water-works recently noted; cost \$50,000; daily capacity, about 300,000 gallons; no machinery required; W. P. Bullock, engineer, Kansas City, Mo.

Tex., Commerce.—City has all needed machinery for extension of water mains recently noted; bond issue \$5000; H. C. Barker, Mayor.

Tex., Galveston.—City Commissioners awarded contract to J. J. Kane to erect additional height of 40 feet to standpipe at Alta Loma.

Tex., Port Lavaca.—W. E. Shell & Co. contemplates construction of water-works; 40,000 gallons capacity; will erect engine-house, install producer-gas plant and construct standpipe; capacity 50,000 gallons; plans and construction by company. (W. E. Shell recently noted to petition City Commissioners for franchise for water-works and electric-light plant.)

Tex., Slaton.—City contemplates installation of water-works at cost of \$100,000; plans not decided; deep-well proposition; amount of \$100,000 may include sewerage construction also; engineers, J. W. Walter and A. E. Leethy; J. S. Edwards, Mayor, care of First National Bank.

Tex., Terrell.—City will lay about 22,360 feet of eight-inch water main on N. Rockwall Ave.; pipe purchased. Address The Mayor.

Va., Luray.—City awarded contract to A. W. McKim and Joseph T. Campbell of Luray to construct extension to water-works; work includes laying of 5000 feet of six-inch and 13,000 feet of four-inch pipe, construction of concrete filtering intake; reservoir is to have capacity of 10,000,000 gallons; gravity dow of freestone water from mountain stream; piping purchased; estimated cost \$17,500; understood that Mr. Campbell will have charge of plumbing and pipe laying, and Mr. McKim, general supervisor. (Lately noted.)

Va., Richmond.—City's contemplated water-works construction consists of connecting South Richmond (formerly Manchester) with reservoir on north side, requiring installation of 20-inch main across James River, either submerged or on bridge; appropriation not made; when funds are available plans, etc., will be prepared; E. E. Davis, superintendent city water-works. (Recently noted.)

W. Va., Ronceverte.—City will vote on \$5000 bond issue for extension of water and sewer systems. Address The Mayor.

W. Va., Sistersville.—City Clerk will receive bids until May 15 for erection of powerhouse at municipal water-works; plans by W. J. Alexander, New Martinsville, W. Va. (See "Electric-light and Power Plants.")

WOODWORKING PLANTS

Ala., Selma.—Spokes.—Selma Spoke Manufacturing Co. increased capital stock from \$10,000 to \$25,000.

Ga., Buchanan.—Furniture and Woodware.—Weaver Manufacturing Co. will, it is reported, install new plant to manufacture furniture and woodware; capital stock \$5000.

Ga., Thomasville.—Carriages.—A. W. Palin will erect two additions to carriage plant; one addition will be brick, 80x30 feet, and used as garage; other addition will be two stories, and used for storing general stock.

N. C., High Point.—Piano Cases, etc.—High Point Manufacturing Co., W. Broad St., will manufacture piano cases, stools, benches, etc.; let contract for erection of 50x150 foot ordinary construction building; open machinery proposals June 1; J. J. Jackson, president; D. M. Pollock, secretary-treasurer; J. A. Shipman, manager. (See "Machinery Wanted.")

Tenn., Knoxville.—Flooring.—Masters Patent Floor Co., 314 N. Gay St., has leased three-story building and purchased machinery to manufacture patented oak hardwood flooring; daily capacity 10,000 feet of flooring in sections; J. F. Masters, president; W. D. Hogan, vice-president; C. S. Agee, secretary-treasurer. (Previously reported incorporated with \$60,000 capital stock.)

Tenn., Memphis.—Chairs.—W. S. Milne, Cleveland, Tenn., is considering establishment of chair factory.

Tex., Waco.—Sash and Doors.—Waco Sash & Door Co. will, it is reported, build plant costing \$100,000.

W. Va., Peterstown.—O. P. Vines and others contemplate organization of company to manufacture excelsior. (See "Machinery Wanted.")

W. Va., Parkersburg.—Store Fixtures, etc.—Hanszen Woodworking Co., recently reported incorporated with \$12,000 capital stock, purchased R. C. Cox plant and is installing additional machinery to be operated by 40-horsepower natural-gas engine; erected machine shop 60x100 feet; E. Hanszen is president; O. A. Hanszen, secretary-treasurer; R. C. Cox, plant superintendent.

BURNED

Ala., Birmingham.—Sloss-Sheffield Steel & Iron Co.'s commissary; loss \$5000 to \$8000.

Ala., Mobile.—R. L. May's residence.

Ala., Montgomery.—Building owned by Mrs. O. Kirkland and J. C. Tyson; Mrs. M. S. Westcott's building; B. L. Holt's building; loss \$7000 to \$9000.

Ark., El Dorado.—T. R. Parker states that residence was not burned as recently reported.

Ark., Pocahontas.—W. A. Smith's residence.

Ga., Bristol.—J. E. Strickland's sawmill.

Ga., Uvalde.—J. B. Jones' stable; J. B. Martin's store.

Ky., Barbourville.—P. W. Walker's store; Smith & Harmon's store; loss \$9000.

Ky., Catlettsburg.—J. M. York's store, loss \$2000; Fred Bruns & Son's shoe store.

Ky., London.—Hubbard Hotel; loss about \$25,000.

La., Jena.—High school. Address The Mayor.

La., New Orleans.—Illinois Central Railroad's warehouse, loss about \$25,000; A. S. Baldwin, chief engineer, Chicago, Ill.

La., Ringgold.—O. G. Thomas' store; G. W. Lawhon & Co.'s store.

La., Vinton.—A. B. Hall's store; loss \$11,300.

Md., Baltimore.—John T. Fahey & Son's stable at 1232-1236 William St.

Md., Baltimore.—H. J. Skrentny's store building at 1611 Eastern Ave.; loss \$15,000.

Md., Ednor.—Beirge Burton's residence; loss \$3000.

Md., North East.—Methodist Episcopal Church and parsonage, loss about \$25,000; Rev. J. P. Otis, pastor; T. C. McCracken's residence; J. T. Kenny's residence.

Md., Salisbury.—Miss Mary Kent's residence on South St.; loss \$3000.

N. C., Cary.—Waldo drug store.

N. C., Flat Rock.—C. E. Roper's hotel; loss \$20,000.

N. C., Henderson.—Carolina Bagging Co.'s storage-house.

Okla., Hugo.—Maurer Bros. & Smith's store; loss \$18,000.

S. C., Columbia.—Taylor Lane Hospital, owned by Mrs. Mary A. Chambers; loss \$5000.

Tenn., Chattanooga.—Tennessee Navigation Co.'s warehouse.

Tenn., Jackson.—Saw and planing mill owned by Kenney Bros. Co., Frankfort, Ky.; loss about \$7000.

Tenn., Knoxville.—Building owned by L. David and occupied by Foster Bros. & Barnett and Menter & Rosenbloom; loss on building, \$6000.

Tenn., Knoxville.—J. C. Cox's residence; loss \$75,000.

Tex., Alpine.—H. L. Lackey's four buildings, loss \$15,000; J. R. Holland's four buildings, loss \$15,000; W. J. McIntyre's building, loss \$9000.

Tex., Brownwood.—Three buildings owned by J. R. Looney and A. L. Armstrong.

Tex., Dallas.—C. Riefler's building; loss \$3500.

Tex., Ennis.—Residence of Rev. John Benas, pastor of Bohemian Catholic Church; loss \$6000.

Tex., Fort Worth.—W. D. Reynolds' barn at 1600 S. Summitt Ave.; loss \$3500.

Tex., Klondike.—J. W. Pratt's residence; loss \$4000.

Va., Highland Springs.—Everett S. Hitchcock's residence; loss \$4000.

Tex., Paducah.—State Bank building; loss \$16,000; Barron building.

Tex., San Antonio.—International & Great Northern Railroad's freight depot, loss \$32,000; O. H. Crittenden, consulting engineer, Palestine, Tex.

Tex., San Antonio.—L. P. Peck Furniture Co.'s warehouse; loss \$20,000.

Tex., Vernon.—Joe Pearce's two dwellings; loss \$3500.

Va., Virgilina.—Detention building. Address Town Council.

W. Va., Churchillville.—Henry P. Osborn's residence.

W. Va., Fayetteville.—Elias Hatfield's store.

W. Va., Flemington.—Pittsvein Coal Co.'s power plant; loss about \$15,000; John W. Davidson, superintendent.

W. Va., Montor.—Wm. T. Patton's residence; loss about \$3000.

Fla., Crystal River.—Methodist congregation will erect edifice. Address The Pastor, Methodist Church.

Fla., Deland.—First Presbyterian Church plans improvements to edifice, including erection of addition 32x66 feet for Sunday-school room; brick and brick veneering; new roof; plans by Cairns & Fitchner, Deland.

Fla., Sarasota.—Methodist Church, Rev. S. Grady, pastor, has plans by Bonfoey & Elliott, Tampa, Fla., for edifice; 50x70 feet; brick; electric lighting; cost \$8000 to \$9000. (Recently noted.)

Ky., Winchester.—Central Baptist Church approved plans for proposed edifice; 40x50 feet; to seat 600. Address The Pastor, Central Baptist Church.

La., New Orleans.—Congregation Temple Sinai will erect synagogue. Address The Rabbi, Congregation Temple Sinai.

Md., Baltimore.—St. Elizabeth's Catholic congregation has plans by Robert C. Ulrich, 72 Gunther Bldg., Baltimore, for edifice at Baltimore St. and Lakewood Ave.; two and a half stories; ornamental stone trimmings; pressed brick; slate roof; reinforced concrete foundations; Gothic type stained glass windows; Monmonier & Sorrell, 1711 McCulloh St., and James J. O'Connor, 427 E. Lexington St., both of Baltimore, are bidding.

Miss., Emory.—Methodist Church is having plans prepared by R. H. Hunt, Chattanooga, Tenn., for edifice; cost \$25,000.

Miss., West Point.—Baptist Church is having plans prepared by R. H. Hunt, Chattanooga, Tenn., for Sunday-school building; brick; cost \$15,000 to \$18,000.

Mo., Joplin.—South Joplin Christian Church plans to erect edifice. Address The Pastor, South Joplin Christian Church.

Mo., Kansas City.—Budd Park Christian Church, Rev. B. L. Wray, pastor, 232 St. John St., has not selected architect to prepare plans for edifice; 80x96 feet; steam heat; cost \$35,000; will receive bids within 60 days. (Recently noted.)

S. C., Greenville.—Buncombe Street Methodist Church is having plans prepared for Sunday-school addition; cost \$15,000.

Tenn., Bristol.—First Presbyterian Church will open bids about July 1 to erect 52x140-foot Sunday-school addition and remodel edifice; ordinary construction; steam heat; electric lighting; cement sidewalks; cost \$30,000; plans by Baumann Bros., 713 Henson Bldg., Knoxville, Tenn. (Recently noted.)

Tenn., Jellico.—Baptist congregation will erect edifice; cost \$25,000 to \$30,000.

Tenn., Knoxville.—Cumberland Presbyterian Church will erect addition to edifice; cost \$15,000. Address The Pastor of Cumberland Presbyterian Church.

Tenn., Memphis.—Baron Hirsch congregation, Benjamin Folsch, rabbi, will erect temple; brick; marble finishings; cost \$35,000.

Tenn., Nashville.—Glen Leven Church will erect edifice; brick and stone; to seat 500; cost \$6000.

Tenn., Springfield.—Springfield Baptist Church plans to erect \$20,000 edifice. Address The Pastor, Springfield Baptist Church.

Tex., Dallas.—Oak Lawn Methodist Church has plans by C. D. Hill & Co., Dallas, for edifice; brick and stone; auditorium to seat 700; Sunday-school to seat 400; Gothic style; cost \$50,000.

Tex., Longview.—Church of Christ will erect edifice. Address The Pastor, Church of Christ.

Tex., Waco.—First Presbyterian Church will erect edifice. Address The Pastor, First Presbyterian Church.

Va., South Boston.—Baptist congregation, R. S. Barbour, chairman building committee, will expend \$20,000 to erect edifice and Sunday-school rooms; brick and wood construction; plans by Wheeler & Stern, Charlotte, N. C.; contract will not be awarded this year. (Recently noted.)

Va., Suffolk.—Christian Church plans to erect edifice. Address The Pastor, Christian Church.

Va., Suffolk.—Baptist congregation plans to erect Sunday-school room and later auditorium; present cost \$10,000; plans not complete; Rev. A. M. McFarland, pastor.

W. Va., Charleston.—Beam Church will erect Sunday-school room. Address The Pastor, Beam Church.

W. Va., Charleston.—Calvary Baptist Church is having plans prepared by J. L. Montgomery, Charleston, for edifice; 70x100 feet; ordinary construction; cost \$25,000; details not determined; construction will not begin for several months. For further information address W. A. Abblitt, 12 Columbia Blvd. (Recently noted.)

BUILDING NEWS

BUILDINGS PROPOSED

APARTMENT-HOUSES

D. C., Washington.—Wilton J. Lambert, 410 5th St. N. W., plans to erect apartment-house at L and 15th Sts. N. W.

Id., Baltimore.—Company is having plans prepared by J. E. Laferty, 11 E. Pleasant St., Baltimore, for apartment-house at Park Ave. and Mount Royal Ter.; three stories; pressed brick; Indiana limestone and terra-cotta trimmings with ornate marble and tile; concrete basing and tile; slag roof; bids opened May 13.

Mo., Kansas City.—J. Burasco will erect store and apartment building; brick construction; cost \$4000.

Mo., Kansas City.—M. Myer will erect store and apartment-house; brick; cost \$4000.

Mo., St. Louis.—Fay Investment Co. will erect three-story tenement-house; cost \$30,000.

Mo., St. Louis.—Fay Investment Co. will erect three-story tenement house; cost \$30,000.

Tenn., Chattanooga.—J. S. Price will erect apartment-house; two stories; brick; 27 rooms; cost \$7000.

ASSOCIATION AND FRATERNAL

Ark., Pine Bluff.—Sahara Temple of Mystic Shriners has plans by Clyde A. Ferrell, State National Bank Bldg., Little Rock, Ark., for temple; pressed brick; cost \$25,000.

Ga., Jackson.—Commercial Loan & Trust Co. proposes erection of office and lodge building to be occupied in part by St. John's Lodge, Ancient Free and Accepted Masons; three stories; brick.

Ga., Jackson.—St. John's Lodge No. 45, Ancient Free and Accepted Masons, will erect three-story lodge building.

Mo., Kansas City.—Ararat Temple, Mystic Shrine, purchased building at 12th St. and Prospect Ave. and will expend \$15,000 for improvements.

N. C., Asheville.—Benevolent and Protective Order of Elks, F. W. Johns, secretary, will not at present erect lodge building. (Recently noted.)

Okla., Boley.—E. T. Barbour, secretary of Masonic Temple Commission of St. John's Grand Lodge, Ancient Free and Accepted Masons, will receive bids until 1 P. M. May 17 to erect Masonic Temple for Colored Masons; certified check for 5 per cent. amount of bid, payable to Mr. Barbour; completion three months after signing contract; plans and specifications at office of T. H. Traylor, basement of 14 California Ave., Oklahoma City, Okla.; W. H. Twine, Twine Bldg., Muskogee, Okla.; T. C. Vincent, Vincent Barber Shop, Guthrie, Okla.; O. W. Gurly, Gurly Bldg., Tulsa, Okla.; G. I. Currin, G. M., chairman of commission.

Va., Norfolk.—Norfolk Lodge, No. 29, Loyal Order of Moose, plans to erect \$30,000 lodge building.

W. Va., Huntington.—Ancient Free and Accepted Masons will receive bids until May 20 and award contract to erect Masonic Temple; 80x140 feet; seven stories; steel and concrete construction; cost \$100,000. (Recently noted.)

W. Va., Morgantown.—Sigma Nu Home Association incorporated with \$10,000 capital

stock by Geo. Colebank, Lonnie W. Ryan and others; will erect chapter-house.

BANK AND OFFICE

Ala., Birmingham.—American Trust and Savings Bank, Webb W. Crawford, president, has plans by William L. Welton, Birmingham, for proposed bank and office building; 18 stories; 50x125 feet; cost not less than \$500,000. (Previously noted.)

Ark., Huttig.—First National Bank of Huttig, T. M. Scott, president, will erect 25x75-foot brick bank building. (See "Machinery Wanted.")

Ark., Little Rock.—Bank of Commerce is having plans prepared by George R. Mann, Little Rock, to remodel Rossner Building at 3d and Main Sts.

Fla., Lakeland.—C. C. Wolf, superintendent Southern Express Co., Savannah, Ga., may be addressed relative to erection of office building. (Recently reported.)

Fla., Tampa.—John Trice will erect bank building. (Recently incorrectly reported to be built by J. Q. Brantley.)

Ga., Jackson.—Commercial Loan & Trust Co. proposes erection of office and lodge building. (See "Association and Fraternal.")

Ky., Louisville.—Wm. N. Cox, president of Louisville Public Warehouse Co., and Harry L. Lewman of Falls City Construction Co. are planning to erect office building at Center and Jefferson Sts.

La., Crowley.—First National Bank will erect bank building; brick; cost \$25,000.

N. C., Hamlet.—J. C. Niemeyer will erect store and office building. (See "Stores.")

N. C., Wadesboro.—J. D. Horne has plans by Wheeler & Stern, Charlotte, N. C., for store and office building. (See "Stores.")

S. C., Norway.—Farmers and Merchants' Bank will erect bank building; two stories; brick.

Tenn., Chattanooga.—J. S. Price will erect office building; three stories; cost \$12,000.

Tex., Galveston.—Nic Bohn has plans by Paul Haase, Galveston, for store and office building at 20th and Market Sts.; three stories; foundation to support six additional stories; reinforced concrete construction; 42x120 feet; elevators; first floor for stores; second floor for offices and upper floors for lodge hall, etc.; cost \$12,000 to \$15,000; construction under supervision of architect.

Tex., Palestine.—Palestine National Bank, Geo. W. Burkitt, vice-president, is reported to erect bank building; six stories; steel construction.

Va., Berkley, Station Norfolk.—Keister & Co. will erect office building.

Tex., Waco.—C. L. Johnson & Son will erect concrete office building.

Va., Lynchburg.—Lynchburg Bank & Trust Co. is reported to erect bank building.

CHURCHES

Ala., Eutaw.—Methodist congregation will erect edifice to cost \$15,000. Address The Pastor, Methodist Church.

Ark., Jonesboro.—First Presbyterian Church adopted plans by H. Leismaster, Jonesboro, for \$15,000 edifice.

W. Va., Martinsburg.—Baptist congregation is having plans prepared by Harding & Upman, 729 15th St. N. W., Washington, for edifice.

CITY AND COUNTY

Ala., Decatur.—City Hall.—City has plans by R. H. Hunt, Chattanooga, Tenn., for city hall; two stories; 89x90 feet; brick and stone; cost \$25,000. (Recently noted.)

Ala., Huntsville.—City Hall and Public Offices.—City voted \$100,000 bond issue for construction of public buildings previously described; Edgar L. Love, architect, Huntsville.

Ala., Mobile.—Armory.—City will remodel armory building; Patrick J. Lyons, Mayor.

Ala., Opelika.—Jail.—Lee County Commissioners will expend \$25,000 to erect fireproof jail to replace present structure; steam heat; electric lighting; details not determined. (Recently noted.)

Fla., Pensacola.—Carnegie Library.—City plans to erect Carnegie Library. Address The Mayor.

Ky., Louisville.—Hospital.—City is having plans prepared by D. X. Murphy & Bro., Louisville, for city hospital; fireproof construction; five structures, all equipped with elevators; central light and power-plant of large capacity; cost about \$500,000; John H. Leathers, chairman of Hospital Commission. (Previously noted.)

Ky., Catlettsburg.—Public Building.—City will rebuild public building; plans not determined; J. J. Montague, Mayor. (Recently reported burned.)

Md., Baltimore.—Offices and Laboratory.—Sewerage Commission, Calvin W. Hendrick, chief engineer, American Bldg., has plans for proposed office and laboratory building on Eastern Ave.; two stories; brick and concrete; slag roof; will receive bids until May 24; B. F. Bennett Building Co., 123 S. Howard St., Baltimore, is bidding.

Md., Baltimore.—Hospital.—Board of Aids, J. Barry Mahool, president, will receive bids at office of J. Sewell Thomas, City Register, City Hall, until 11 A. M. May 17 to erect addition to nurses' quarters and consumptive hospital at Bayview; certified check for \$350, payable to Mayor and City Council of Baltimore; drawings and specifications at office of Edward D. Preston, Inspector of Buildings, City Hall.

Mo., McAlester.—Courthouse and Jail.—Pittsburg County Commissioners plan to issue \$150,000 of bonds to erect courthouse and jail.

Okla., Wetumpka.—City Hall.—City voted \$5000 bond issue to erect city hall. Address The Mayor.

S. C., Beaufort.—Town Hall.—J. B. Kinghorn, Town Clerk and Treasurer, will receive bids until May 15 to erect town hall.

Tenn., Humboldt.—City Hall.—City will vote on \$15,000 bond issue to erect city hall. Address The Mayor.

Tenn., Nashville.—Market.—City has plans by C. K. Colley, Nashville, for market, for which Legislature authorized issuance of \$200,000 worth of bonds. (Recently noted.)

Tex., Paris.—Rest Building.—City will open bids about June 5 to erect rest building; 44x44 feet; brick and stone; steam heat; cost \$10,000; plans by Barry & Smith, Paris. (Recently noted.)

Tex., Sterling City.—Jail.—Sterling county voted \$10,000 bond issue to erect jail. Address County Commissioners.

Va., Lynchburg.—City Hospital.—Committee on Public Institutions and Charities will receive bids to erect City Hospital until noon May 22; certified check for \$250; plans, etc., at office of Heard & Caldwell, architects, First National Bank Bldg., Lynchburg.

Va., Norfolk.—Engine-house.—City is having plans prepared by B. F. Mitchell, Norfolk, for engine-house at 12th St. and Monticello Ave.; cost \$10,000; building will be two stories; 20x70 feet; brick; hot-water heat; plans will be ready in about two weeks.

Va., Norfolk.—Auditorium.—City contemplates erection of auditorium. Address The Mayor.

Va., Richmond.—Band Stands.—Bids received by Charles E. Bolling, City Engineer, until 4 P. M. May 11 to erect five band stands in certain parks on or before June 1; certified check for \$50 payable to City Treasurer; further information at office of Mr. Bolling.

COURTHOUSES

Ark., Fordyce.—Dallas County Commissioners are reported to award contract May 29 for erection of courthouse; cost about \$40,000. (Recently noted.)

La., Ville Platte.—Sealed proposals will be received by Police Jury, Evangeline parish,

until noon July 6 for construction of courthouse and jail buildings in accordance with plans and specifications prepared by Emile Well, architect; plans on file in office of architect, 1312 Whitney-Central Bldg., New Orleans, La., and in office of clerk of Evangeline Parish Police Jury; plans and specifications can be secured upon application to architect on deposit of certified check for \$50; each bid must be accompanied by certified check for \$1000 drawn to order of E. S. Dossmann, president Police Jury. (Recently noted.)

N. C., Kenansville.—Board of Duplin County Commissioners will receive sealed proposals not later than noon June 5 for erection of county courthouse in accordance with plans and specifications by Wheeler & Stern, architects, Charlotte, N. C.; each proposal to be accompanied by certified check for \$1000; plans and specifications at this or architects' office, or will be loaned to bidders at discretion of architects on deposit of \$50; usual rights reserved; successful bidders to make satisfactory surety bond for \$15,000 within 10 days after notice of award of contract; James J. Bowden, clerk. (Recently noted.)

N. C., Tarboro.—Edgecombe County Commissioners will receive sealed proposals until noon June 1 to erect county courthouse in accordance with plans and specifications by Wheeler & Stern, architects, Charlotte, N. C.; each proposal to be accompanied by certified check for \$1000; plans and specifications may be seen at the office of H. S. Bunn, clerk, or at office of architect; plans will be loaned at discretion of architect on deposit of \$50; usual rights reserved; successful bidder to make satisfactory surety bond for \$10,000 within 10 days after notice of award of contract. (Recently noted.)

Okla., McAlester.—Pittsburg County Commissioners plan to issue \$150,000 of bonds to erect courthouse and jail.

Okla., Pawhuska.—Osage county plans issuance of \$125,000 of bonds to erect courthouse. Address County Commissioners.

Tex., Nacogdoches.—Nacogdoches county voted \$90,000 bond issue to erect courthouse and jail. Address County Commissioners. (Recently noted.)

DWELLINGS

Ala., Gadsden.—W. D. Pinckard will receive bids at once for erection of dwelling; two stories; ordinary construction; grates; electric lighting; cost \$3000; plans by Mr. Smith, Gadsden. (Recently noted.)

Ark., Benton.—J. E. Bush will erect stone-frame bungalow; natural gas heat.

Ark., Hot Springs.—J. J. Heim, president of Kansas City Home Telephone Co., Kansas City, Mo., will erect bungalow.

Ark., Little Rock.—Charles E. Leifer will erect residence; two stories; frame; cost \$3500.

Ark., Little Rock.—Carroll D. Wood has plans for residence; two stories; brick veneer; cost \$8000.

Ark., Walnut Ridge.—William Dobbs will erect dwelling.

Fla., Jacksonville.—B. W. Blount will erect dwelling; two stories; pressed brick; colonial style; construction begun.

Fla., St. Augustine.—C. T. Meekins will erect bungalow.

Fla., St. Petersburg.—Mrs. E. J. Gallagher has plans by Edgar Ferndon, St. Petersburg, for bungalow.

Fla., Jacksonville.—Brown Realty Co., 419 Duval Bldg., will erect 40x50-foot dwelling; concrete block; cost \$3500.

Fla., St. Augustine.—T. J. Marshall will erect residence.

Fla., Tampa.—Bay Shore Development Co. will erect one eight-room and two seven-room residences; cost \$5000 each; plans by Bonfoey & Elliott, Tampa.

Fla., Tampa.—J. L. Reed is having plans prepared by A. H. Johnson, Tampa, for residence; eight rooms.

Fla., Tampa.—Dr. G. M. Meek will erect residence; cost \$5000; plans by Bonfoey & Elliott, Tampa.

Ga., Atlanta.—Dillon-Morris Company will erect two dwellings; cost \$5000.

Ga., Atlanta.—Charles L. Gately has plans by A. Ten Eyck Brown, Atlanta, for residence; Tudor-Gothic style; 13 or more rooms; field stone, quarried on site, and red brick; Flemish bond in black mortar; terra-cotta and cement mastic trimmings; beamed ceiling and open fireplace in reception hall and oak wainscoting extending to ceiling.

Ga., Newnan.—N. L. North is having plans prepared by E. A. Gleason, Newnan, for dwelling; cost \$5000.

La., Ferriday.—Sol Boyar will erect two dwellings to replace burned structures.

La., Ferriday.—Mrs. H. C. Sevier will erect two dwellings to replace burned structures.

La., Ferriday.—Charles Zerowsky will erect three dwellings to replace burned structures.

La., New Orleans.—L. A. Hubert has plans by E. F. Spori, New Orleans, for dwelling; 30x60 feet; ordinary construction; gas and electric lighting; cost \$5000; construction by owner. (Recently noted.)

La., New Orleans.—E. D. Richard will erect double cottage; cost \$3100.

La., New Orleans.—F. Dausserau will erect single residence; two stories; cost \$5750.

La., New Orleans.—J. S. Cane will erect residence; two stories; frame; cost \$4500.

La., New Orleans.—National Realty Co. will erect two single residences to cost \$5000 and two double cottages to cost \$3000.

La., New Orleans.—John Baubrick will erect single cottage; cost \$3000.

La., New Orleans.—Chris Reuter will erect raised cottage; cost \$5000.

La., New Orleans.—Dr. H. White will erect residence; cost about \$12,000.

La., Shreveport.—J. M. Vise has plans by J. M. Hyde, Times Bldg., Shreveport, for dwelling; seven rooms.

La., Waterproof.—Jacob A. Jenkins, Chattanooga, Tenn., is reported to erect residence.

Md., Baltimore.—Olie L. Tunis is having plans prepared by Henry J. Tinley, 314 N. Charles St., Baltimore, for five residences at Windsor Mills; two and a half stories; frame; slate roofs; hot-water heat; cost about \$4500 each.

Md., Baltimore.—J. Powers is having plans prepared by Henry J. Tinley, 314 N. Charles St., Baltimore, for 10 dwellings on Calvert St. between 30th and 31st Sts.; three stories; brick; 16x58 feet; ornamental stone trimmings; hot-water heat; electric lights; cost \$50,000.

Md., Baltimore.—Provident Realty Corporation, Garrison and Piedmont Aves., has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, for cottage on Elsinore Ave., between Piedmont and Alto Aves.; two and a half stories; frame; front and side porches; cost \$3300.

Md., Baltimore.—Seth H. Linthicum, 217 St. Paul St., and J. L. Walsh, 28 S. Broadway, are having plans prepared by Charles Broring, 9 N. Potomac St., Baltimore, for 29 dwellings on Glover St., between Foster and Fair Aves.; two stories; brick; cost about \$1100 each; construction by Mr. White.

Md., Baltimore.—Eugenia Shift, 36 E. Preston St., has plans by Laurence H. Fowler, 347 N. Charles St., Baltimore, for cottage on University Parkway; two and a half stories; brick; stone trimmings; slate roof; concrete foundation.

Md., Baltimore.—Charles F. Blake, 20 E. Preston St., has plans by Theodore Wells Pietsch, American Bldg., Baltimore, for addition to and remodeling residence; contractors estimating are John Hiltz & Sons Company, 3 Clay St.; Charles L. Stockhausen National Marine Bank Bldg.; Louis O. Hildebrand & Bro., 215-17 Courtland St.; John Cowan, 106 W. Madison St.; John S. Busick, 2311 Rayner Ave., and Edward Pliert, 15 E. Fayette St., all of Baltimore.

Md., Baltimore.—Arthur W. Burdette has plans by Henry J. Tinley, 314 N. Charles St., Baltimore, for five cottages on North Ave., between Slingluff and Ashburton Aves.; three stories; iron-spot brick; marble trimmings; 14x53 feet.

Md., Roland Park.—Dr. Samuel Chew, Midvale Rd., will erect residence on Midvale Rd.

Miss., Laurel.—Laurel Cotton Mills, J. S. Pleasants, superintendent, will erect residence for superintendent; two stories; mill construction; steam heat; construction under supervision of superintendent, and local builder. (Recently noted.)

Mo., Kansas City.—G. W. Ellsworth will erect two dwellings; frame; cost \$6000.

Mo., Kansas City.—A. F. Roberts will erect dwelling; brick veneered; cost \$12,500.

Mo., Kansas City.—Wells Bros will erect four dwellings; frame; cost \$9000.

Mo., Kansas City.—Cullum Realty Co. will erect two dwellings; frame construction; cost \$3000.

Mo., Kansas City.—Dr. W. H. Shutz will erect brick dwelling; cost \$19,000.

Mo., Kansas City.—L. T. Yount, manager of Oliver Chilled Plow Co., will erect residence; cost about \$10,000.

Mo., St. Louis.—Chippewa Realty & Building Co. will erect dwelling; one story; cost \$3800.

Mo., St. Louis.—Davidson Bros. Investment Co. will erect nine dwellings; two stories; cost \$28,000.

N. C., Durham.—B. L. Sanders will erect residence.

N. C., Durham.—W. R. Murray will erect residence.

N. C., Fayetteville.—A. D. Armsfield is having plans prepared by John C. Stout, Rocky Mount, N. C., for dwelling; 67x70 feet; ordinary construction; hot-air heat; electric lighting; cement sidewalks; cost \$7000; will soon open bids.

N. C., Raleigh.—Lonnie Weathers will erect two dwellings; 12 rooms; brick veneer; cost \$6500 each.

N. C., Washington.—A. D. McLean is having plans prepared by John C. Stout, Rocky Mount, N. C., for dwelling; 48x60 feet; ordinary construction; steam heat; electric lighting; cement sidewalks; cost \$6000; will open bids May 25.

Okla., Tulsa.—S. G. Dunn will erect residence; cost \$3000.

S. C., Honea Path.—T. L. Clincales will erect \$6000 frame dwelling; two stories; eight rooms; plans by J. H. Casey, Anderson, S. C.

S. C., Norway.—Baptist congregation will erect parsonage. Address The Pastor, Baptist Church.

Tenn., Greenville.—James F. Swingle will erect dwelling.

Tenn., Knoxville.—A. H. Nave will erect residence; cost \$4000; construction begun.

Tenn., Knoxville.—J. H. Anderson will erect residence; cost \$25,000.

Tenn., Memphis.—W. D. Roberts of Roberts Cotton Oil Co. will erect residence; cost \$30,000.

Tenn., Nashville.—Mrs. H. C. Brown will erect \$5000 residence; brick construction.

Tenn., Nashville.—Lena L. Cox will erect residence; two stories; brick; cost \$4000.

Tex., Albia.—R. E. Wright has plans by J. M. Hyde, Times Bldg., Shreveport, La., for two-story residence; plans will be ready in 15 days.

Tex., Bryan.—Hildreth McAshan will erect bungalow.

Tex., Center.—J. C. Rogers will erect residence; two stories; nine rooms.

Tex., Dallas.—J. Edgar Finley will erect three residences to cost \$2500, \$2735 and \$3350, respectively.

Tex., Dallas.—W. G. Scarff will erect residence; cost \$4500.

Tex., Dallas.—J. M. Ware will erect residence; cost \$3500.

Tex., Dallas.—A. P. Tenson will erect residence; two stories; brick veneer; cost \$15,000.

Tex., Dallas.—H. J. Curtis Company has plans by C. D. Hill & Co., Dallas, for residence.

Tex., Dallas.—J. A. Stephenson has plans by C. D. Hill Co., Dallas, for residence; two stories; frame; cost \$8000.

Tex., El Paso.—Phil Bargman will erect five residences; six rooms each; brick construction; cost \$9000.

Tex., Goliad.—L. J. Lincecum will erect residence; construction begun.

Tex., Houston.—W. G. Love will erect residence.

Tex., Marfa.—John H. Livingston has plans by J. A. Pitts, Marfa, for dwelling; one story; seven rooms; stone and frame; electric lighting; cost \$3000. (Recently noted.)

Tex., Orange.—Methodist Episcopal Church South, Rev. J. L. Massey, pastor, has not definitely determined plans for parsonage recently noted.

Tex., Palestine.—Newell Kane will erect residence.

Tex., Port O'Connor.—Port O'Connor Townsite Co. will expend \$13,000 to erect six four-room cottages and six three-room cottages; ordinary construction; electric wiring; cement sidewalks; plans by Hull & Prager, Victoria, Tex.; bids opened May 11. (Recently noted.)

Tex., Richmond.—Richmond Development Co. will erect four cottages.

Tex., Teague.—A. T. Clark will erect cottage.

Tex., Westmoreland.—W. T. Eldridge, Sugarland, Tex., will erect residence.

Va., Norfolk.—J. J. Dorsey opened bids to erect residence; Jesse Johnson, Norfolk, is lowest bidder; cost about \$4000.

Va., Norfolk.—Gregory & Williamson are lowest bidders on dwelling for W. H. White, Jr.; cost \$20,000; plans by Ferguson, Colrow & Taylor, Norfolk. (Recently noted.)

Va., Norfolk.—W. H. Wales, president Merchants and Mechanics' Bank, has plans by B. F. Mitchell, Norfolk, for dwelling; cost \$15,000; Gregory & Williamson, 701 Law Bldg., Norfolk, are lowest bidders.

Va., Petersburg.—James E. Cuthbert will erect residence; 10 rooms; frame; cost \$7000.

Tex., Richmond.—Richmond Development Co. will erect number of dwellings.

Va., Richmond.—A. L. Cavedo will erect dwelling; two stories; brick; cost \$3000.

Va., Richmond.—S. G. Meredith will erect three tenements (six dwellings); brick; cost \$24,000.

Va., Richmond.—Mrs. E. C. Cersley will erect detached two-story brick dwelling.

Va., Richmond.—R. Francione has plans by Charles H. Fisher, Richmond, for store and dwelling. (See "Stores.")

Va., Roanoke.—J. T. Overstreet will erect dwelling; two stories; frame; cost \$3000.

Va., Roanoke.—G. W. Whitlow will erect residence; two stories; frame; cost \$4000.

Va., Willoughby Beach.—C. E. Hall will erect residence; cost \$5500.

W. Va., Fairmont.—Fred Helmick contemplates erection of several dwellings on 25-foot lots; desires plans and specifications from architects.

W. Va., Parkersburg.—J. M. Deem will erect dwelling; eight rooms.

GOVERNMENT AND STATE

Ala., Montgomery.—State Capitol and Executive Mansion.—State of Alabama, Governor Emmett O'Neal, chairman of commission, is reported to receive plans until May 12 for wing to capitol building; cost \$100,000; will also expend \$50,000 to erect executive mansion. (Previously noted.)

Ala., Montgomery.—Capitol.—Alabama Capitol Building Commission, Thomas M. Owen, secretary, is not ready to announce plans for erection of wing to capitol building. (Recently noted.)

Ark., Fort Smith.—Fair Buildings.—Arkansas and Oklahoma Fair Association is having plans prepared by Frank M. Blaisdell of Blaisdell & Carver, Southern Trust Bldg., Little Rock, Ark., for fair buildings.

Fla., Fort Barrancas.—Quartermaster and Subsistence Storehouse.—Constructing Quartermaster at Fort Barrancas opened bids to remodel quartermaster and subsistence storehouse; Henry Monk, Pensacola, Fla., is lowest bidder at \$3630.

Okla., Fort Sill.—Powder Magazine.—Office Constructing Quartermaster. Sealed proposals in triplicate will be received at this office until 10 A. M. May 18 for constructing powder magazine at Fort Sill; specifications, blueprints and further information furnished on application to the undersigned; certified check for \$5 will be required to insure return of plans, etc.; United States reserves right to accept any or reject all proposals; proposals should be endorsed "Proposals for Powder Magazine" and addressed to Capt. David L. Stone, U. S. A., Constructing Quartermaster. (Previously noted to receive bids for this work until April 15.)

Tex., Galveston.—Quarantine Station.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., opened bids to erect quarantine station; E. L. Ryals of Galveston is lowest bidder at \$84,900. (Previously fully detailed.)

Tex., Galveston.—Treasury Department, James Knox Taylor, supervising architect, Washington, D. C., opened bids to erect quarantine station; E. L. Ryals of Galveston is lowest bidder at \$84,900. (Previously fully detailed.)

Tex., Victoria.—Postoffice.—Treasury Department, Office of Supervising Architect, Washington, D. C. Sealed proposals will be received in this office until 3 P. M. June 9, and then opened, for construction, complete (including plumbing, heating apparatus, electric conduits and wiring and lighting fixtures), of United States postoffice and courthouse at Victoria, Tex., in accordance with drawings and specifications, copies of which may be obtained from custodian of site at Victoria, or at above office, at discretion of architect.

HOTELS

Ala., Birmingham.—New Hotel Metropolitan Co. organized with \$15,000; R. L. Mathis, president; H. B. New, general manager; Mamie Lively, secretary-treasurer; purchased Metropolitan Hotel and will remodel, etc.

Ala., Huntsville.—City voted \$100,000 bond issue to erect hotel. Address The Mayor. (Recently noted to vote on this issue.)

Ark.-Tex., Texarkana.—F. W. Offenhauser and Ben M. Foreman are reported as to erect hotel.

Fla., Jasper.—W. J. Snell, architect, Lake City, Fla., will receive bids May 22 to erect hotel; 80x90 feet; three stories; ordinary brick construction; electric lights; hand elevator; cost \$20,000. (Recently noted.)

Fla., Jacksonville.—R. W. Simms will expend \$40,000 to remodel and erect one-story

addition to Victoria Hotel; 105x98 feet; ordinary brick construction; steam heat; gas and electric lighting; passenger elevator; plans by James R. Walsh, Jacksonville; day labor; will let subcontracts. (Recently noted.)

Fla., St. Petersburg.—C. N. Crawford has plans for addition to Detroit Hotel; four stories; brick; L shape; about 30 sleeping rooms; electric lights, etc.

Fla., Tampa.—Florence Villa Hotel Co. will expend about \$30,000 for improvements, including additional rooms and improvements to lobby and offices.

Ga., Atlanta.—Chamber of Commerce is interested in erection of proposed \$1,000,000 hotel; John S. Owens, chairman of hotel committee.

Ga., Valdosta.—W. L. Fender has plans by Curran Ellis, Macon, Ga., for hotel; five stories; 90 to 100 rooms; elevators; hot and cold water in all rooms.

La., Shreveport.—Peter Youree is having plans prepared by Geo. R. Mann, Little Rock, Ark., for hotel; eight stories; steel; cost about \$300,000. (Recently noted.)

N. C., Durham.—J. R. Paschal is reported as interested in erection of proposed \$135,000 hotel.

N. C., Lenoir.—Hilbritten Park Co. incorporated by T. C. Robbins and others. (See "Land Developments.")

Tex., Corpus Christi.—Neuces Hotel Co. incorporated with \$187,600 capital stock by H. G. Sherman, W. W. Jones and E. B. Cole; will probably erect \$305,000 hotel. (Previously noted.)

Tex., Houston.—S. Billings of Kansas City, Mo., is reported to erect hotel; 10 stories.

MISCELLANEOUS

Ala., Birmingham.—Clubhouse.—Roebuck Springs Club will be incorporated with \$2000 capital stock by W. W. Crawford, N. L. Miller and others; will erect clubhouse.

Fla., Tampa.—Courthouse.—Societe Di Mutuo Soccorso Italia, J. A. Falsone, vice-president, will erect clubhouse.

La., New Orleans.—Music Studio.—Mrs. E. B. Summers is interested in erection of proposed music studio building; preliminary plans are reported to have been prepared.

La., New Orleans.—Club.—Charles De B. Claiborne, president Cosmopolitan Bank & Trust Co., 321 Carondelet St., contemplates erecting gymnastic clubhouse for young men.

Md., Baltimore.—Clubhouse.—Phoenix Club will expend \$10,000 in erection of addition and other improvements to clubhouse; 20x40 feet; ordinary construction; plans by Theodore Wells Pietsch, 1001 American Bldg., Baltimore. (Recently noted.)

Md., Glyndon.—Home.—Aged People's Outing Association will erect home to replace burned structure; frontage 90 feet; front and side porches; to accommodate 40 visitors; Geo. L. Bassford, 1702 Appleton St., Baltimore, Md., and others, building committee.

Md., Mt. Washington.—Mt. Washington Social Club, Lawrence Murphy, president, Falls Rd., will erect clubhouse; frame construction; one story; interior finishings of hardwood; tennis court, bowling green and quilt grounds; cost \$3000.

Miss., Lexington.—Fair Building.—Holmes County Fair Association incorporated with \$10,000 capital stock by M. M. Rayner, G. A. Wilson, Morris Lewis and others.

Mo., Kansas City.—Hospital.—R. A. Long of Long Bell Lumber Co. and Dr. William E. Minor are interested in erection of hospital; will have plans prepared for proposed structure by Henry F. Holt, Kansas City; cost about \$250,000.

N. C., Durham.—Clubhouse.—R. H. Wright, W. J. Griswold and associates are interested in erection of clubhouse. (See "Land Developments.")

S. C., Charleston.—Commercial Club, L. E. Hendricks, secretary, will receive bids until noon May 12 for repairing clubhouse; plans and specifications at office of club.

S. C., Columbia.—Hospital.—Taylor-Lane Hospital, Dr. Matilda A. Evans, manager, will rebuild structure reported burned; loss \$5000.

S. C., Spartanburg.—Hospital.—Good Samaritan Hospital plans to expend about \$30,000 to erect hospital building.

Tenn., Memphis.—Stock Yards.—Memphis Union Stock Yards (D. Darnell, C. R. Hazel and others) will complete organization of company recently mentioned; capital stock \$150,000; will erect eight or ten horse and mule barns about 150x300 feet in size; also build stables.

Tenn., Nashville.—Bathhouse.—B. F. Wilson is reported interested in erection of proposed Turkish bathhouse.

Tex., Georgetown.—Tabernacle.—Old Settlers' Association awarded contract to Bedford Lumber Co. to erect tabernacle; 5x75 feet; seating capacity 1500; cost \$4000.

Tex., Waco.—Fair Buildings.—Cotton Palace Directors, Seth N. Mayfield, secretary, will receive competitive plans May 15 for flower show building 60x150 feet, with dome; machinery hall 80x250 feet, etc.; will later erect stock barns. (Recently noted.)

RAILWAY STATIONS

Ala., Eufaula.—Central of Georgia Railroad Co., C. K. Lawrence, chief engineer, Savannah, Ga., will not erect depot. (Recent report an error.)

Ala., Huntsville.—Southern Railway, D. W. Lums, chief engineer, Washington, D. C., and Nashville, Chattanooga & St. Louis Railway, H. McDonald, chief engineer, Nashville, Tenn., will erect union depot.

La., Baton Rouge.—Yazoo & Mississippi Valley Railroad, S. S. Morris, general superintendent, Memphis, Tenn., will erect sheds over depot.

La., Hammond.—Illinois Central Railroad, A. S. Baldwin, chief engineer, Chicago, Ill., is reported to erect depot; pressed-brick construction; cost \$30,000.

Okla., Idabel.—St. Louis & San Francisco Railroad Co., F. G. Jonah, chief engineer, St. Louis, Mo., will not erect depot, as recently noted; will enlarge present station at small cost.

Okla., Tulsa.—Midland Valley Railroad, C. Kaighn, chief engineer, Muskogee, Okla., will erect freight depot and remodel present structure for both freight and passenger depot.

Tex., Temple.—Missouri, Kansas & Texas Railway, S. F. Fisher, constructing engineer, will erect passenger station.

Tex., Tyler.—St. Louis Southwestern Railway of Texas, W. T. Eaton, chief engineer, Tyler, will not erect passenger and freight station. (Recent report incorrect.)

SCHOOLS

Ala., Bessemer.—Catholic church, Rev. Father Kittrick, pastor, is planning to erect St. Aloysius Convent School; cost about \$6000.

Ala., Jacksonville.—Jacksonville State Normal College, C. W. Dugette, president, will erect building.

Ala., Livingston.—Alabama Normal College is having plans prepared for dormitory; three stories; brick; steam heat; to accommodate at least 100 students.

Ala., Samson.—City is planning to erect school building by public subscription. Address The Mayor.

Ark., Heber Springs.—School Board plans erection of school.

Ark., Rogers.—Board of Education will erect high school; city will issue \$35,000 worth of bonds.

Ark., Stuttgart.—School Board will erect \$50,000 school; John G. Rossman, superintendent of public schools.

D. C., Washington.—Gonzaga College, Rev. E. De L. McDonnell, president, 19 L St. N. W., will erect building; three stories.

Ga., Adel.—Sparks Collegiate Institute, Rev. Albert W. Rees, president, plans to expend \$50,000 for improvements, including erection of brick dormitory of not less than 50 bedrooms and dining hall to seat not less than 300 students; assembly hall, parlors, etc.

Ga., Blue Ridge.—Georgia Baptist Assembly will erect domestic science training school; 50 rooms; E. G. Willingham of Atlanta, Ga., is interested.

Ga., Sycamore.—City will soon award contract to erect \$6000 school; brick construction. Address The Mayor.

Ky., Hickman.—Gen. H. A. Tyler will erect school for city; one story; brick; four classrooms, two halls and four cloakrooms.

La., Balcon.—Plaquemine Parish School Board, Pointe a la Hache, La., plans to erect school.

La., New Orleans.—Loyola College, Rev. Albert Biever, president, awarded contract to Jackson Construction Co., New Orleans, for erection of two buildings; main structure 205 feet long and five stories high; tapestry brick and concrete; front entrance of Bedford stone; stairs, floor and walls of concrete; second floor to have auditorium with gallery seating 650 persons; construction progressing; architects, Toledano & Wogan, Maheba Bldg., New Orleans. (Previously incompletely mentioned.)

La., Plaquemine.—School Board will erect high-school building. D. L. Reville, Mayor.

Md., Baltimore.—City plans erection of school at Forest Park; J. Barry Mahool, Mayor.

Miss., Courtland.—R. H. Hunt, Chattanooga, Tenn., will prepare plans for proposed agricultural high-school building; brick construction; cost \$10,000.

Miss., Courtland.—R. H. Hunt, James Bldg., Chattanooga, Tenn., will prepare plans for agricultural high-school building; two stories and basement; brick; cost \$10,000.

Miss., Macon.—City has not selected architect to prepare plans for \$7000 school building; 75x82 feet; fireproof construction; cost of heating plant, \$2000; address proposals to C. J. Sherman. (Recently noted to vote on \$10,000 bond issue.)

Mo., Grandin.—W. E. McKinney, president board of directors, will receive bids until May 15 to erect brick school; 40x50x22 feet; 10-foot hall; basement; sand and gravel furnished on ground; contractors to specify name and grade of material to be used; construction to begin June 1.

Mo., St. Louis.—Building committee, Board of Education, opened bids for reconstruction of Froebel and Washington schools. The lowest bids on the Froebel school were as follows: General work, George E. Moeller & Co., \$26,900; plumbing and gasfitting, Henry F. Doerner, \$1921; heating and ventilating, O'Mara Heating Co., \$15,380; heat regulation, National Regulator Co., \$1215; vacuum cleaning, Spencer Turbine Cleaner Co., \$1200; electric-light wiring, E. A. Koenemann Electric Co., \$4100; lowest bids on Washington school: General work, Wall Bros., \$28,661; plumbing and gasfitting, Henry Doerner, \$2494; heating and ventilating, O'Mara Heating Co., \$12,980; heat regulation, National Regulator Co., \$1249; electric-light wiring, Eclipse Electrical Co., \$3680; vacuum cleaning, Spencer Turbine Cleaner Co., \$1235; committee received bids for standard fire windows and doors for the Board of Education building; John F. Ruth, St. Louis, is lowest bidder at \$7170.

N. C., Scotland Neck.—City will open bids May 15 to erect school building; 98 feet 4 inches by 120 feet 4 inches; ordinary construction; steam heat; electric lighting; cost \$20,000; plans by John C. Stout, Rocky Mount. Address proposals to C. L. McDowell. (Recently noted.)

Okla., Sapulpa.—City will remodel school partially burned; erect addition to cost \$20,000. (City recently voted \$100,000 bond issue to erect structure to replace burned building.)

Okla., Wetumpka.—City voted \$10,000 bond issue to erect school. Address The Mayor.

S. C., McCormick.—City voted bonds to erect school; brick construction. Address The Mayor.

S. C., Prosperity.—Prosperity School District voted \$3000 bond issue to erect school. Address District School Trustees.

Tenn., Binghamton.—City has plans by R. C. Alsop & Co., Birmingham, Ala., for proposed high school; cost, including site, \$33,000; T. Kennedy, Mayor.

Tenn., Chattanooga.—Hamilton County Industrial School Trustees will expend \$20,000 to erect addition to Bonny Oaks Industrial School, recently noted; brick, stone and concrete; heating and lighting plant to cost \$1500; plans by Charles E. Bearden, Chattanooga; date of opening bids not set. Address W. B. Davis, president. (See "Machinery Wanted.")

Tenn., Humboldt.—City plans to erect high school building. Address The Mayor.

Tenn., Tullahoma.—Fitzgerald & Clarke will open bids May 15 to erect school gymnasium; 65x45 feet; ordinary construction; steam heat; electric lighting; cost \$5300; plans by Russell E. Hart, Stahlman Bldg., Nashville, Tenn.; contract will be awarded to local contractor.

Tex., Brownwood.—Howard Payne College contemplates erection of \$50,000 dormitory.

Tex., Carthage.—Bids received until noon May 9 by W. R. Anderson, president of board, to erect two-story-and-basement brick school; certified check for \$500, payable to Mr. Anderson; plans and specifications at offices of Mr. Anderson at Carthage; J. O. Gilbrath, Hillsboro, Tex., and T. J. Galbrath, Chickasha, Okla.

Tex., Dallas.—City voted \$250,000 bond issue for school improvements, including erection of school in South Dallas, six-room addition to high-school building, also repairs, etc., to other school. Address The Mayor. (Recently noted.)

Tex., Flatonia.—City plans to erect \$12,500 school. Address The Mayor.

Tex., Georgetown.—Wen School District No. 70 of Williamson county will issue \$7500

of bonds to erect school. Address County Commissioners.

Tex., Jourdanton.—Jourdanton Independent School District will vote May 15 on \$30,000 bond issue to erect school; brick or stone construction. Address The Mayor.

Tex., Melvin.—Town voted \$10,000 bond issue to erect school. Address Town Clerk.

Tex., Petty.—Petty Independent school district voted \$12,000 bond issue to erect school. Address District School Trustees.

Tex., Petty.—City is having plans prepared by Barry & Smith, Paris, Tex., for proposed school; two stories; brick; cost \$12,000.

Tex., Shafter Lake.—School Board has not selected architect to prepare plans for school; four rooms; ordinary construction; cost \$4000. (Recently noted to vote bond issue.)

Tex., Terrell.—Wesley College, S. M. Black, president, is having plans prepared by F. G. Shaw, Fort Worth, Tex., for dormitory; cost \$20,000. (Recently noted.)

Va., Norfolk.—P. C. Stanworth, H. B. Vaughan and A. E. Wilson, school committee, Seventh Ward, will receive bids through John Keenan Peebles, architect, Law Bldg., Norfolk, until 4.30 P. M. May 16 for erection of additions and extensions to Seventh Ward school; certified check for \$500, payable to Seventh Ward Local Board of Improvement; plans and specifications at office of architect as above.

Va., Portsmouth.—E. R. Brinkley, chairman of committee, will receive bids at office of N. R. Hamilton, clerk of School Board, until 6 P. M. May 26 to erect Park View school building at Ann, Owens and Butler Sts.; also bids for heating and sanitation; certified check for \$250; plans and specifications at office of Charles M. Robinson, Mutual Bldg., Richmond, Va., or may be had on deposit of certified check for \$10.

W. Va., Huntington.—Board of Education has not selected architect to prepare plans for school building; two stories; 65x90 feet; brick; steam heat; electric and natural-gas lighting; cost \$15,000. Address A. C. Thomas, chairman building committee. (Recently noted as receiving bids.)

STORES

Ala., Birmingham.—R. D. Burnett Cigar Co. purchased Peerless property at Second Ave. and 19th St., and is reported to erect additional store and remodel.

Ala., Decatur.—Charles E. Malone will erect business building; two stories; brick.

Ala., Gadsden.—R. L. Miller and L. Love-man will erect business building.

Ala., Ragland.—J. J. Teague will erect brick store building.

Ark., Little Rock.—C. N. Miller has plans by F. W. Gibbs & Co., Little Rock, for store building; pressed brick; tile floor; natural-gas heat.

Ark., Little Rock.—G. W. Hayman has plans by Theo. M. Sanders, Little Rock, for brick business building; three stories.

Ark., Little Rock.—Snodgrass & Bracy are having plans prepared by F. W. Gibbs & Co., Little Rock, for bronze, plate-glass and mahogany store front.

Fla., Miami.—W. C. Groves of Macon, Ga., will erect business building; concrete construction.

Ga., Atlanta.—R. C. Little and L. C. Green contemplate erection of two brick stores in rear of apartments. (See "Apartments.")

Ga., Atlanta.—United Cigar Stores Co. leased building at Peachtree St. and will expend \$30,000 for improvements.

La., New Orleans.—Charles Laque reported to have plans by Eugene Surgt. Contt St. near Dauphine St., New Orleans, for business building.

Mo., Kansas City.—J. O. Patterson will erect store; brick construction; cost \$8500.

Mo., Kansas City.—J. Barasco will erect store and apartment building; brick; cost \$4000.

Mo., Kansas City.—M. Myer will erect store and apartment building; brick; cost \$4000.

N. C., Hamlet.—J. C. Niemeyer will erect store and office building; two stories; brick; stores on first floor; offices above.

N. C., Hendersonville.—G. W. Ragan of Gastonia, N. C., will not erect business building. (Recently report an error.)

N. C., Monroe.—Bell & Bundy have plans by Wheeler & Stern, Charlotte, N. C., for business building; pressed brick; plate-glass and beaten copper front.

N. C., Raleigh.—William W. Vass will erect two store buildings at 126 and 128 Fayetteville St.

N. C., Wadesboro.—J. D. Horne has plans by Wheeler & Stern, Charlotte, N. C., for store and office building; pressed brick; plate glass and copper front.

Okla., Tulsa.—R. T. Daniel will erect business building; three stories; cost \$20,000.

S. C., Norway.—H. P. Fulmer will erect business building.

S. C., Norway.—G. F. Gilson will erect store building.

Tenn., Chattanooga.—Chattanooga Feed Co., Market St. near Main St., is having plans prepared for store and warehouse; four stories and basement; stone foundation; electric elevators; sprinkler system.

Tenn., Chattanooga.—Stone Fort Land Co. will erect 35x150-foot mercantile building; five stories and basement; mill construction. (Mills & Lupton recently reported as preparing plans for erection of building.)

Tenn., Knoxville.—John L. Rhea estate will remodel store building to be occupied by Knoxville Electric Co.; will install new front with show window; install stairway, etc.; construction begun.

Tenn., Knoxville.—McClung Keener & McClung will open bids about June 1 to erect addition to store building; eight stories; 100x125 feet; mill construction; steam heat; electric lighting; cement sidewalks; electric elevators; cost \$75,000; plans by Baumann Bros., Henson Bldg., Knoxville. (Recently noted.)

Tex., Bryan.—R. W. Howe will erect two-story brick business building.

Tex., Cameron.—T. S. Henderson will erect business building; two stories; brick.

Tex., Cross Plains.—J. E. Spencer will erect two store buildings; brick construction.

Tex., Dallas.—Perkins-Watkins Dry Goods Co. will erect store building.

Tex., El Paso.—Z. T. White will erect business building at 111 El Paso St.

Tex., Galveston.—Nic Bohn has plans by Paul F. Haase, Galveston, for store and office building; cost \$12,000 to \$15,000. (See "Bank and Office.")

Tex., Goree.—Bids received until 2 P. M. May 10 by West Texas Supply Co. to erect one-story brick store; frontage 72 feet; certified check for \$250, payable to company; plans on deposit of \$10.

Tex., Houston.—Levy Bros Dry Goods Co. will make improvements to store building, including erection of two additional stories to portion of main building, three stories to annex, remodeling interior to provide for carrying additional weight, installation of elevator, etc.; cost \$47,505.

Tex., Lebanon.—J. H. Clemong will erect store building to replace burned structure; white pressed-brick front.

Tex., Mt. Pleasant.—J. M. Badt will erect business building; two stories; brick.

Va., Portsmouth.—Dr. Chas. T. Parrish will erect department store; three stories; concrete.

Tex., Tenaha.—W. H. Wall will rebuild business building; 30x100 feet; ordinary construction; cost \$3000; architect not selected. (Recently reported burned.)

Tex., Waco.—E. W. Marshall will erect two-story-and-basement business building.

Va., Richmond.—W. I. Johnson will erect three-story store and lodge building; cost \$9000.

W. Va., Boomer.—Elias Hatfield will rebuild store reported burned.

THEATERS

Ala., Opelika.—Mrs. M. T. Trawick and W. Earle Hudson are interested in erection of opera-house; cost \$15,000 to \$20,000.

D. C., Washington.—Imperial Theater Co., R. K. Cook, secretary, 901 Longfellow St., N. W., awarded contract to F. T. Nesbit Company of New York to erect theater on 9th St., between D and E Sts.; fireproof construction; brick and steel; stage with paneled trap center; main floor to contain orchestra seating, orchestra circle and four elevated boxes.

Ky., Paducah.—Friedman, Keller & Co. are having plans prepared by W. L. Brainerd, Paducah, for fireproof arcade and theater building; 110x175 feet. (Recently noted.)

Va., Norfolk.—Concord Realty Corporation has plans by S. K. Howells, Richmond, Va., for Victoria Theater; 173x90 feet; stage 31x57 feet, and 52 feet high; main entrance to be two-story dome effect; cost \$50,000 to \$60,000; will receive bids until May 22 from Myers-Turpin Construction Co., Moore Construction Co., East & Hobbs, Gregory & Williamson, John Monk, all of Norfolk, and E. J. Roney of Richmond, Va. (Recently noted.)

Va., Norfolk.—M. O. Spratley is having plans prepared by Neff & Thompson, Seaboard Bank Bldg., Norfolk, for theater; architects may be addressed. (Recently reported.)

Va., Norfolk.—Mr. Cristopoulos and associates are having plans prepared by B. F. Mitchell, Norfolk, for proposed vaudeville and moving-picture theater on Granby St.

Va., Roanoke.—Roanoke Amusement Co. organized with \$50,000 capital stock; D. W. Persinger, president; A. P. Staples, Jr., vice-president; W. P. Henritze, secretary-treasurer and general manager; proposes to erect theater; will have plans prepared by Clement B. Brun, 1 Madison Ave., New York; seating capacity 1500; cost \$75,000.

W. Va., Fairmont.—Majestic Theater Co. organized with \$50,000 capital stock; will erect vaudeville theater.

WAREHOUSES

Ky., Kuttawa.—Farmers' Warehouse and Storage Co., incorporated with \$4000 capital stock by Nathan O. Gray, Fred C. Dorroh, J. F. Smith and others.

Ky., Maysville.—Planters' Warehouse Co., incorporated with \$50,000 capital stock by P. P. Parker, J. B. Durrett, E. T. Kirk and J. H. Clarke.

Md., Baltimore.—Baltimore & Ohio Railroad Co., Baltimore, is not erecting warehouse on McHenry St., recently reported; M. A. Long, architect of company, states that Seward & Co. have rented building from railroad company and are remodeling structure.

BUILDING CONTRACTS AWARDED

APARTMENT-HOUSES

Ga., Atlanta.—R. C. Little and L. C. Green, 39 N. Forsyth St., awarded contract to Z. P. Gunn to remodel building for apartments; 50x100 feet; mill construction; cost \$17,000; details of improvements not determined; may erect two stores in rear. (Recently noted.)

Ky., Louisville.—Weissinger-Gault Realty Co. awarded contract to Selden-Breck Construction Co., St. Louis, Mo., and Louisville, eight stories; 84x200 feet; 300 rooms; steam heat; vacuum cleaners; fireproof construction; cost \$400,000; plans by McDonald & Dodd, Louisville. (Previously mentioned.)

Tenn., Nashville.—B. J. Kennedy has contract to erect apartment-house; two stories; brick; cost \$5500.

W. Va., Parkersburg.—R. M. Lowther awarded contract to J. W. Daniels, Parkersburg, to erect apartment-house; three stories.

BANK AND OFFICE

Ark., Eudora.—H. H. Parr awarded contract to J. R. McBride, Little Rock, Ark., to erect store and office building; plans by F. W. Gibb & Co., Little Rock; cost about \$10,000.

Ark., Hoxie.—Bank of Hoxie awarded contract to H. Lesmeister of Jonesboro, Ark., to erect bank building; two stories; brick; cost \$5000; plans by R. P. Morrison, State National Bank Bldg., Little Rock, Ark. (Recently noted.)

D. C., Washington.—Victor J. Evans, Victor Bldg., awarded contract to Samuel J. Prescott Company, 814 13th St., Washington, to erect addition to Victor Bldg.; 55x40 feet; fireproof construction; cost \$55,000; plans by Appleton P. Clark, Jr., 816 14th St., N. W., Washington. (Recently noted.)

Fla., Ocala.—Ocala National Bank awarded contract to J. F. Jenkins & Co., Ocala, to erect bank building; 40x76 feet; fireproof construction; steam heat; electric lighting; cost \$25,000; plans by W. B. Camp, Jacksonville, Fla. (Recently noted.)

Fla., Ocala.—Ocala National Bank awarded contract to Williams & Jenkins to erect bank building; one story; Indiana limestone; 40x76 feet; steam heat. (Recently described.)

La., Bogalusa.—Bank of Bogalusa has plans by and awarded contract to Earhardt & Doty, Bogalusa, to erect bank and office building recently noted; 30x60 feet; ordinary construction; steam heat; concrete sidewalks and vault lights; cost \$2500. (See "Machinery Wanted.")

La., Shreveport.—Commercial National Bank awarded contract to Stewart McGehee Construction Co., Little Rock, Ark., to erect bank building; cost \$350,000; plans by Geo. R. Mann, Little Rock, Ark. (Recently noted.)

N. C., Winston-Salem.—C. C. Marshall awarded contract to Fogle Bros. Company, Winston-Salem, to erect residence; two

Md., Frederick.—T. M. Felton will erect warehouse.

Miss., Greenwood.—Yazoo & Mississippi Valley Cotton Co., S. F. Jones, president, will erect warehouse. (Recently reported incorporated with \$100,000 capital stock under "Land Developments.")

Mo., St. Louis.—Oliver Chilled Plow Works, South Bend, Ind., will erect warehouse; concrete construction; cost \$150,000 to \$200,000; H. T. Curtright, local manager.

S. C., Barnwell.—H. D. Calhoun will erect warehouse.

S. C., Olanita.—Olanita Warehouse Co., incorporated with \$4000 capital stock by J. C. Tuluck, D. E. Fraser and S. J. Tomlinson.

Tenn., Chattanooga.—Chattanooga Feed Co. is having plans prepared for warehouse and store building; four stories and basement. (See "Stores.")

Tenn., Memphis.—Louisville & Nashville Railway, W. H. Courtenay, chief engineer, Louisville, Ky., and Nashville, Chattanooga & St. Louis Railway, H. McDonald, chief engineer, Nashville, Tenn., will erect two warehouses; one of three rooms, single story, brick and concrete, cost \$33,250; the other of 10 rooms, two stories, brick and concrete, cost \$65,000.

Tenn., Memphis.—Cherokee Commission Co. contemplates erection of warehouse recently reported. (See "Miscellaneous Enterprises.")

Tex., Louise.—People's Warehouse Co., incorporated with \$7000 capital stock by R. F. Hudson, C. A. Ward, H. P. Stockton and others.

stories and basement; nine rooms; frame; shingle roof; electric lights; cost \$3000.

Tenn., Nashville.—Nat. Baxter awarded contract to rebuild and remodel Old Homestead Bldg. at Union St. and Third Ave. for Hermitage National Bank; four stories; marble and stone front; elevator; cost \$30,000 to \$35,000; plans by Thomas S. Marr, Nashville; bank will install vaults, fixtures, etc.

Va., Richmond.—Life Insurance Co. of Virginia awarded contract to George A. Fuller Company, New York, to erect office building; 50x150 feet; fireproof construction; cost \$300,000; plans by Clinton & Russell, New York. (Recently noted.)

CHURCHES

Tex., San Angelo.—First Christian Church is progressing with erection of edifice; 120x78 feet; fireproof construction; hot-blast system of heating; gas and electric lighting; cost \$25,000; plans by J. L. Shepherd, San Angelo; contract recently noted awarded to Hanshaw & Dalton, San Angelo. (See "Machinery Wanted.")

Tex., Fort Stockton.—Methodist church awarded contract at \$13,385 to C. S. Oats, Dublin, Tex., to erect proposed edifice.

Tex., San Antonio.—Laurel Heights Methodist Church awarded contract at \$52,000 to erect edifice; heating and plumbing to cost \$15,000 additional. Address The Pastor, Laurel Heights Methodist Church.

Va., Richmond.—Ashbury Place Methodist Church, Rev. L. T. Williams, pastor, awarded contract to J. Lee Davis, Richmond, to erect edifice; stone and brick; Grecian temple style; dome; main auditorium to seat about 300; Sunday-school to seat 1000 to 1100; cost \$45,000; plans by Huggins & Bates, Roanoke, Va.; plans to erect parsonage later.

CITY AND COUNTY

Ga., Waycross.—Jail.—Ware County Commissioners awarded contract to Pauly Jail Building Co., St. Louis, Mo., to erect jail; two stories; brick and cement; cost \$34,000. (Previously noted.)

COURTHOUSES

Ark., Prescott.—Nevada County Commissioners awarded contract to L. R. Wright & Co., Dallas, Tex., to erect courthouse; fireproof construction; cost \$51,500; plans by Theodore M. Sanders, Little Rock, Ark.; to be completed by January 1, 1912. (Previously noted to receive bids until April 29.)

Miss., Decatur.—Newton County Commissioners awarded contract at \$18,000 to C. H. Pabbs of Meridian, Miss., to erect proposed courthouse. (Previously noted.)

W. Va., Hamlin.—Lincoln County Commissioners awarded contract to Falls City Construction Co., Louisville, Ky., to erect courthouse; fireproof construction; fire, flood and robber proof vaults; cost \$71,000. (Recently noted to receive bids until April 27.)

DWELLINGS

Ark., Little Rock.—A. C. Webb awarded contract to W. Peterson, Little Rock, to erect residence; two stories; frame; cost \$3000.

Ark., Pocahtontas.—E. Dalton, president of Randolph County Bank, awarded contract to A. Leismaster, Jonesboro, Ark., to erect residence to replace burned structure; brick School Board awarded contract to erect and concrete construction; fireproof; 12 rooms.

D. C., Washington.—Henry W. Dalby, 300 E. Capitol St., has plans by and awarded contract to W. R. Coon, 2414 Irving St. N. E., Washington, for dwelling at 3107 South Dakota Ave. N. W.; one story; frame; cost \$3500.

Ga., Atlanta.—William Bailey Lamar has plans by George Oakley Totten, Jr., 808 17th St., Washington, D. C., for Italian villa; brick, covered with cream-colored stucco; red tile roof; early Italian Renaissance style; three stories; rectangular plan with terraces and pergolas on all sides; Palladian motive loggia two stories, with vaulted ceiling and marble fountain at either end; main entrance hall 20x40 feet; two stories, with main stairs at one end and gallery leading to various rooms on second floor; high paneled wainscot, stairs, gallery and coffered ceiling of oak; Tennessee sandstone fireplace in hall; conservatory or sun parlor; pergola porches and porte cochere in rear; boiler-rooms, laundry, etc., in basement; residence will be 59x83 feet; ordinary construction; steam heat; electric lighting; contract awarded to Nicholas Itner, Atlanta.

Ga., Atlanta.—Edgewood Trading Co. awarded contract to Aaron Wooten, Atlanta, to erect six-room frame bungalow; cost \$2000; plans by J. L. Bowles, Atlanta. (Recently noted.)

Ky., Maysville.—James M. Rains has plans by and awarded contract to Lowe & Easton to erect dwelling; 28x40 feet; brick and frame; natural gas heat; gas and electric lighting; cost \$3000. (Recently noted.)

Md., Frederick.—D. Pinceton Buckey awarded contract to Martin C. Kemp, Frederick, to erect residence.

Md., Baltimore.—Harry M. Benzinger has plans by F. E. Beall, 213 St. Paul St., Baltimore, for 10 dwellings on Edmondson Ave. between 8th and 9th Sts.; three stories; iron-spot brick; marble trimmings; cost about \$20,000; awarded contract to Thos. B. Stanfield & Son, 109 Clay St., Baltimore.

Md., Baltimore.—Charles E. Gauline awarded contract to Wm. F. Welsh, 250 W. Preston St., Baltimore, to erect seven dwellings on Cator Ave. and York Rd.; two stories; brick; 15x47 feet; cost \$18,000; plans by F. E. Beall, 213 St. Paul St., Baltimore.

N. C., Charlotte.—D. Hatcher awarded contract to J. D. Ford, Charlotte, to erect residence; cost \$4000; construction begun.

S. C., Liberty.—S. O. Skelton awarded contract to Albert F. Riser, Liberty, to erect residence; pressed-brick veneer; nine rooms; cost \$10,000; construction begun.

Tenn., Johnson City.—Robert C. Hunter awarded contract to Curtis Bros., Johnson City, to erect residence.

Tenn., Knoxville.—Mrs. Charles Mitchell will expend \$6500 to erect residence; 38x16 feet; heating and lighting not in general contract; plans by R. F. Graf & Sons, Knoxville; contract recently noted awarded to Thomas & Turner, Knoxville. (Recently noted.)

Tex., Gonzales.—Mrs. S. H. Hopkins awarded contract to erect cottage.

Tex., Houston.—H. G. Frost, 303 First National Bank, awarded contract to Texas & Louisiana Lumber Co., Houston, to erect dwelling; 35x54 feet; ordinary construction; cost \$4000. (Recently noted.)

Tex., Mercedes.—E. E. Evans awarded contract to Mr. Cunningham, Brownsville, Tex., to erect residence; brick construction.

Tex., Port Lavaca.—F. L. Chapman awarded contract to W. G. Corfe, Port Lavaca, to erect bungalow; six rooms.

Tex., Seguin.—R. E. Blumberg awarded contract to Prencell & Dietz, Seguin, to erect two cottages.

Tex., Stamford.—W. M. Harlan awarded contract to Jones Bros., Stamford, to erect dwelling; 32x52 feet; cost \$5000; plans by E. G. Wethers, Stamford; materials mainly purchased. (Recently noted.)

Tex., Victoria.—Frank B. Lander awarded contract to C. L. Acree, Victoria, to erect residence; eight rooms; cost \$7000.

Va., City Point.—Messrs. Epps awarded contract to J. W. Holt, Petersburg, Va., to erect addition to residence; cost about \$3000.

Va., Norfolk.—J. B. Hecht awarded con-

tract to East & Hobbs, Norfolk, to erect residence; cost \$15,000.

W. Va., Wheeling.—A. G. Craft, Triadelphia, W. Va., has contract to erect two dwellings in Folmar & Shafer Addition.

GOVERNMENT AND STATE

Ga., Lagrange.—Postoffice.—Government awarded contract at \$46,000 to Pearson Construction Co., Dothan, Ala., to erect post-office. (Previously noted to receive bids until April 20.)

Tex., Corsicana.—State Orphanage.—Board of Trustees of State Orphan Home awarded contract at \$44,582 to Geo. W. Breilhart & Co., Abilene, Tex., to erect dormitory; plans by C. H. Page & Bro., Austin, Tex. (Recently noted to receive bids until May 1.)

Va., Portsmouth.—Officers' Quarters.—Government awarded contract at \$34,268 to R. H. Richardson & Son, Hampton, Va., to erect proposed junior officers' bachelor quarters at navy-yard.

HOTELS

Ky., Louisville.—Weissinger-Gaulbert Company awarded contract to Selden-Breck Construction Co., St. Louis, Mo., and Louisville, to erect proposed addition; cost about \$250,000.

La., Houma.—J. Jaccuzzo awarded contract to Angello Gemmelli, Houma, to erect hotel and store building. (See "Stores.")

S. C., Mayesville.—Mrs. S. L. Mayes awarded contract to erect second story of proposed building, to be used for hotel.

Tex., Cameron.—T. S. Henderson awarded contract to erect brick sample-room for Auditorium Hotel.

MISCELLANEOUS

Md., Easton.—Clubhouse.—Governors of Talbot County Club awarded contract to U. G. Ross, Easton, to erect proposed clubhouse; main reception-room, 20x40 feet; shower baths in both ladies' and gents' department; verandas on three sides; nine-hole golf course; plans by Frank Ross, Easton.

Tex., Dallas.—Clubhouse.—Dallas Golf and Country Club awarded contract to Fred A. Jones Building Co. of Dallas and Houston, Tex., to erect clubhouse; two stories and basement; brick and concrete; Tudor style; 112x95 feet; cost about \$60,000; plans by C. D. Hill & Co., Dallas. (Previously described.)

Va., Virginia Beach.—Pavilion.—Norfolk Southern Railway awarded contract at \$53,000 to Barbour & Brent, Norfolk, Va., to erect casino and pavilion. (Recently fully described.)

RAILWAY STATIONS

Tex., Comanche.—St. Louis Southwestern Railway of Texas awarded contract to Thompson & Scott of St. Louis to erect combination passenger and freight station; 24x160 feet; concrete and brick; cost \$16,000; plans by J. S. Berry, superintendent bridges and building, St. Louis, Mo. (Recently noted.)

SCHOOLS

Fla., Green Cove Springs.—Board of Public Instruction awarded contract to W. C. Lewman, Louisville, Ky., to erect school; two stories; 58x74 feet; concrete and brick; electric lights; cost \$12,000. (Recently noted to open bids May 2.)

Ga., Atlanta.—Georgia School of Technology hospital building, now nearing completion, is one of group of buildings for which contracts were previously awarded; 52x97 feet; brick walls; wood joists; steam heat; electric lighting; cost \$14,000; contracts awarded to R. I. Hiley and A. G. Allen; plans by Francis P. Smith, Georgia School of Technology. (Recent notice incorrect.)

La., Mamou.—St. Landry Parish School Board, Opelousas, La., awarded contract to erect schools at Mamou and Pine Prairie, La.; will also make improvements to other schools.

La., Pine Prairie.—St. Landry Parish schools at Pine Prairie and Mamou, La. (See "Schools," La., Mamou.)

Okla., Perry.—City awarded contract to H. J. Vandenberg, Weatherford, Okla., to erect high-school building; cost \$30,000. (Previously noted.)

Okla., Stillwater.—State Board of Agriculture awarded contract to Brown & Stewart, Stillwater, to erect stock-judging pavilion for Agricultural and Mechanical College; two stories; 116x52 feet; cost \$11,944.

Tex., Abilene.—City awarded contract to G. L. Boley, Abilene, to erect proposed school; cost \$18,000; plans by Preston & Curtis, Abilene.

Tex., Kyle.—School Board awarded contract to W. H. Birkner, Kyle, to erect school building; two stories; octagon shape; 6000 square feet of floor space; fireproof and ordinary construction; brick and stone; cost \$10,000; plans by R. L. Pierce, San Antonio. (See "Machinery Wanted.")

Tex., Rock Island.—City awarded contract to J. F. McKnight, Hallettsville, Tex., to erect school; brick; cost \$10,000.

Tex., Sutherland Springs.—City awarded contract to Walter Sutherland to erect school; cost \$6000.

Tex., Winters.—School Board awarded contract to erect proposed school; cost \$20,000.

Va., Danville.—City awarded contract at \$27,438 to erect proposed Loyal Street School; 14 rooms. Address The Mayor. (Recently noted.)

STORES

Ark., Endora.—H. H. Parr awarded contract to J. H. McBride, Little Rock, Ark., to erect store and office building; cost \$10,000; plans by F. W. Gibb & Co., Little Rock, Ark. (See "Bank and Office Buildings.")

Ala., Corey, R. F. D. from Ensley.—W. W. Watkins, Aberdeen, Miss., awarded contract to Mr. Larkin, Birmingham, Ala., to erect store building; 30x90 feet; fireproof construction; cost \$7000. (Recently noted.)

Ark., Tuckerman.—L. D. Smith awarded contract to Moore, Baulch & Bowles, Hoxie, Ark., to erect proposed business building; brick construction; cost \$8000.

D. C., Washington.—F. V. Killian, The Cumberland, awarded contract to Samuel J. Prescott, 814 13th St. N. W., Washington, to repair building at 1608 14th St. N. E.; cost \$26,000.

D. C., Washington.—Evans Estate, 1420 New York Ave. N. W., awarded contract to George A. Fuller Construction Co., Munsey Bldg., Washington, and Fuller Bldg., New York, to repair building at 1415 G St. N. W.; cost \$6000; plans by Frederick Pyle, Equitable Bldg., Washington.

Ga., Augusta.—McElwee-Thomas Dry Goods Co. awarded contract for improvements to store building.

Ky., Catlettsburg.—G. W. Gunnell awarded contract to Ward & Sweeney, Catlettsburg, to erect store building; three stories; 20x100 feet; ordinary construction; plans by J. E. Geiske. (Recently noted.)

La., Houma.—J. Jaccuzzo awarded contract to Angello Gemmelli, Houma, to erect store and hotel building; three stories; 78x65 feet; cement blocks; cost \$8000; construction begun. (Recently noted.)

Md., Baltimore.—Hardesty & Collins awarded contract to Adam Kratz, 343 S. Smallwood St., Baltimore, for improvements to store at 203-205 N. Eutaw St., including minor improvements to front and remodeling interior, removing present stairways, installation of new stairs, removing all partitions, making each floor one room, etc.; cost of construction about \$6000; entire cost, including fixtures, etc., \$12,000; plans by John K. Stack, 12 E. Lexington St., Baltimore.

N. C., Hendersonville.—D. S. Pace has plans by and awarded contract to W. V. Justus, Hendersonville, to erect store building; 65x80 feet; brick; stoves; electric lighting; cost \$4000. (Recently noted.)

N. C., Wilmington.—J. W. Murchison & Co. awarded contract to Joseph Schad, Wilmington, to erect business building; 186x66 feet; red brick; limestone trimmings; semi-fireproof steel and mill construction; electric elevator; plans by H. E. Bonitz, Wilmington. (Recently noted.)

Okla., Milburn.—S. J. Powell awarded contract to Bagby & White, Ardmore, Okla., to erect business building; 21 feet 1 inch by 30

feet; fireproof construction; gasoline lighting; cost \$2157; plans by W. A. Tackett & Co., Ardmore, Okla. (Recently noted.)

Okla., Chickasha.—S. H. Kress & Co., 396 Broadway, New York, awarded contract to F. L. Graham, Tulsa, Okla., to erect store building; cost \$36,000.

Okla., Milburn.—Herd-Farnham Company awarded contract to George T. White, Ardmore, Okla., to erect business building; 50x110 feet; fireproof construction; hand-power elevator, 8x12 feet; cost \$6050; plans by W. A. Tackett, Ardmore, Okla. (Recently noted.)

Tenn., Chattanooga.—J. S. Price awarded contract to erect mercantile building on Main St. near Market St.; three stories and basement; brick; cost \$12,000; plans by E. L. Hudnal, Chattanooga; Mr. Price will supervise construction. (Recently noted.)

Tex., Govee.—West Texas Supply Co. awarded contract to J. N. McFatter of Haskell to erect proposed business building; 47x135 feet; cost \$9000.

Tex., Hillsboro.—W. M. & F. B. Bond will expend \$12,500 to erect four one-story store buildings; one 25x75 feet, two 25x120 feet and one 25x40 feet; brick; metal ceiling; plans by A. S. Boze; materials purchased; contract recently noted awarded.

Tex., Port Arthur.—Peter Stock awarded contract to erect business building; two stories; brick; 25x140 feet; cost \$20,000.

Tex., Wharton.—L. Paine & Son awarded contract to F. W. Parsons to erect store building; 60x60 feet; fireproof construction; cost \$4500. (Recently noted.)

Tex., Wharton.—A. A. Norton awarded contract to F. Parson to erect store building; 29x80 feet; brick; electric lighting; cost \$4000. (Recently noted.)

Tex., Westhoff.—Carter Bros., Cheapside, Tex., awarded contract to F. R. Perkins, Dallas, Tex., to erect store building; brick; 50x100 feet; 19-foot walls; solid glass front; metal ceiling; concrete walled ceiling 25x100 feet.

Va., Norfolk.—Steve Seelinger awarded contract to Dear & Totty, Norfolk, to erect store and apartment building; three stories; two-colored bricks; marble base; 125x23½ feet; first floor for stores; upper floors for apartments; cost \$12,000; plans by Lee & Diehl, Norfolk.

Va., Richmond.—R. Francione has plans by Charles H. Fisher, Richmond, for store and dwelling at 1105 Hull St.; three stories; 28x179 feet; cost \$10,000; construction by owner.

THEATERS

Va., Lynchburg.—Trent Bros. awarded contract at \$11,337.50 to Smoot and Sheehan, Lynchburg, for woodwork on proposed theater; stage 44x25 feet, with dressing-rooms, etc., beneath; orchestra, four private boxes, mezzanine balcony and gallery to seat 1200 to 1300.

WAREHOUSES

Md., Baltimore.—E. B. Hunting, 830 Equitable Bldg., has plans by and awarded contract to E. L. Walsh, 22 Clay St., Baltimore, to erect warehouse at 2 S. Frederick St.; three stories; brick and stone; wood and concrete floors; 32x59 feet; cost \$9000.

N. C., Henderson.—Carolina Bagging Co. has plans by and awarded contract to Robert Bunn, Henderson to rebuild storage warehouse reported burned; 120x180 feet; ordinary construction; cost \$5000.

Va., Danville.—Independent (Cabell) Warehouse Co. awarded contract to H. A. Osborne & Son, Danville, to remodel warehouse; 135x215 feet; two stories; ordinary brick construction; cost \$15,000; plans by Pettit & Cave, Danville. (Recently noted.)

RAILROAD CONSTRUCTION

RAILWAYS

Ala., Audalusia.—The Louisville & Nashville Lumber Co., says a telegram, is surveying to build a line branch from 15 to 20 miles long from near River Falls, on the Louisville & Nashville Railroad, to open up timber land. W. H. Courtenay, chief engineer of the railroad at Louisville, Ky., may be able to give information.

Ala., Bodka.—The Sumter Lumber Co. of Bodka, with headquarters at Chicago, has let contract to J. N. Gillis & Son of Brewton, Ala., to build 20 miles of standard-gauge railroad at Bodka. John Alexander of Chicago is president and F. J. Hughes of Meridian, Miss., is general manager.

Ala., Union Springs.—President W. M. Blount of the Birmingham & Southeastern Railway says that an extension of 23 miles is to be built from Fort Davis to Milledge,

Ala., making the road 36 miles long from Union Springs. Route is level. J. W. Wright of Union Springs is the contractor. D. B. McKenzie is chief engineer. Gordon P. Paine is vice-president and Hugh Foster secretary. Mr. Blount is general manager. Besides Messrs. Blount, Paine and Foster the directors include W. M. Pitts, J. M. Ellis, B. T. Eley and C. E. Gholston. Capital stock is increased from \$100,000 to \$350,000.

Ala., Tuscaloosa.—The Tuscaloosa Mineral Railroad Co., F. G. Blair, president, says a dispatch, has let contracts thus: Dunn & Lallande of Birmingham, from Hurricane Creek to Brookwood, 11 miles; W. L. Watson, six miles, from Hurricane Creek to Tuscaloosa, and the Vance Construction Co., 2 miles in Tuscaloosa. Work is to begin immediately.

Ark., Harrisburg.—A committee has been appointed, says one of the members thereof,

to investigate the practicability of constructing an electric railway to connect Marked Tree, Harrisburg and Newport, Ark. J. C. Mitchell presided and J. H. Pilling was secretary of a meeting on the plan. Only five miles of the route is rough country, the rest being level. Another meeting is to be held May 19.

Ark., Little Rock.—The Little Rock, Pine Bluff & Eastern Traction Co. has been incorporated; capital authorized, \$1,500,000, of which \$500,000 is preferred stock. Line proposed to connect Pine Bluff, Altheimer, Stuttgart, Helena, Clarendon and other points with Little Rock. Temporary officers: C. C. Kavanaugh, president; J. W. Mahaffey, secretary.

Ark., Wilson.—The Wilson Northern Railway has been authorized to build north from Kelsor to Ross, eight and a half miles, connecting with the Jonesboro, Lake City & Eastern, and also south from Wilson to Bridge Junction. R. E. Lee Wilson is president and general manager at Memphis, Tenn., and H. H. Brown is chief engineer at Bardston, Ark.

D. C., Washington.—A later report concerning the chartering of the Washington & Old Dominion Railroad Co. to build a line from Washington, D. C., to Winchester, Va., about 60 miles, says that the main lines may be 50 miles long, which may mean that branches are to be constructed; capital \$2,000,000. Charles M. Hendley is president, William B. Emmert vice-president, Charles E. Howe secretary, George Howard treasurer, and Hugh A. Thrift, all of Washington, are the incorporators and directors. Others mentioned are George R. Willis and Francis T. Homer of Baltimore, Md. An officer says that plans are not sufficiently matured to make any announcement about them now.

Fla., Ocala.—Contract is let, says a dispatch, to J. T. McArthur & Co. of Gainesville, Fla., to complete the Ocala Northern Railroad to Palatka, Fla. E. P. Kentz of Ocala is president.

Fla., Ocala.—C. H. Mead of Lansing, Mich., is reported working on a plan to build an electric railway to connect Ocala with Lake Weir and Silver Springs. A local committee is as follows: George McKay, D. S. Woodrow, S. T. Sistrunk, Kramer & Christian and E. W. Davis.

Fla., Pensacola.—The Pensacola, Mobile & New Orleans Railroad is reported to have amended its charter in Alabama to increase capital from \$10,000 to \$750,000. Henry McLaughlin of Pensacola is president. Construction is progressing.

Fla., Sanford.—Preliminaries are reported complete for the Citrus Southern Electric Railway, and it is said tracklaying will begin by September 1. Line will be 45 miles long from Sanford to Kissimmee and Orlando. T. K. Miller of Orlando is president, and J. J. Brophy of Winter Park, Fla., general manager.

Fla., Stuart.—The Okeechobee & St. Lucie Railway, it is reported, is projected by B. W. Mulford of the Mulford Land Co., Stuart, Fla.; G. D. Bryan and George O. Butler of the Bryan & Butler Company, West Palm Beach, Fla., and N. L. Cowan, Jacksonville, Fla. Proposed route is from St. Lucie Inlet at Gilbert's Bar to Chancey Bay, and thence to Lake Okeechobee and Tampa Bay, about 160 miles.

Ga., Adel.—The petition for charter of the Adel, Pavo & Thomasville Railroad Co., previously reported, shows that the incorporators are H. H. Tift of Tifton, Ga.; J. F. Harris, John A. Kennedy, W. L. Adams, E. H. Smith and W. C. Snodgrass of Thomas county, C. E. Davis of Colquitt county, R. C. Woodward, J. H. Kennon, P. E. Williams, A. W. Parrish and J. Z. Jackson of Berrien county, Georgia. The proposed line is from Adel to Pavo and Thomasville, Ga., about 45 miles; capital \$200,000.

Ga., Augusta.—The Atlantic Coast Line, says a report, has purchased a tract of land 400 feet long and 500 feet wide southeast of the city limits about half a mile, and will build freight yards immediately, laying about six miles of tracks. E. B. Pleasants is chief engineer at Wilmington, N. C.

Ga., Cary.—An officer of the Cary North & South Railroad Co. says that charter is granted, company organized and survey begun for 15 miles to be completed this month, this much to be graded by October 15. It is a local enterprise. Entire line proposed is about 50 miles, from Hawkinsville to Gordon, Ga., via Cochran, Cary and Danville. Route practically level. H. R. Brown is president and D. B. Dunn chief engineer, both at Macon, Ga. H. F. Armstrong is vice-president, Frank Wade treasurer and J. H. King secretary, all at Cary, Ga. Other directors are W. L. Jameson, S. L. Richard-

son, W. D. Porter, B. F. Abney and George H. Wade, all of Cary.

Ga., Dalton.—Frank T. Reynolds of Chattanooga, Tenn., is reported working on a plan for an interurban railway from that city to Dalton, Spring Place and Chatsworth.

Ga., Waycross.—The Atlantic Coast Line, it is reported, will build a double-tracked steel and concrete trestle over the Altamaha River, awarding contract soon. More double-tracking will also be done. E. B. Pleasants is chief engineer at Wilmington, N. C.

Ga., West Point.—Reported that a movement is under way to build an electric railway connecting West Point, Hamilton, Talbotton, Culloden, Forsyth, Juliette and Monticello. The Mayor at West Point may be able to give information.

Ky., Covington.—The work to be done at De Coursey, near Latonia, is the construction of a double-bump switching yard for the Louisville & Nashville Railroad. Thrasher & Gunter of Knoxville, as previously reported, have the contract.

Ky., Lexington.—The Lexington & Interurban Railway is reported proposing to build a line from Lexington to Nicholasville, 22 miles. I. L. Oppenheimer is general manager at Lexington, Ky.

Ky., Pikeville.—An official of the Chesapeake & Ohio Railway confirms report of the charter of the Levisa River Railroad Co. in both Kentucky and Virginia to build a line from a connection with the Big Sandy Branch of the C. & O. at the confluence of Levisa and Russell forks of the Big Sandy River in Kentucky, along the Levisa Fork to Grundy, Va., altogether about 43 miles. Surveys have been made and location maps filed. Contracts not let nor can it be said when work will begin. Decatur Axtell of Richmond, Va., is president of the new company. H. Pierce is engineer of construction of the C. & O. at Richmond.

La., Donaldsonville.—The Lafourche Valley & Gulf Railway Co. has been granted franchise in Donaldsonville, and proposes to build an electric railway to Leesville, about 90 miles. F. M. Welch is president and Charles Maurin secretary-treasurer, both at Donaldsonville.

La., Walker.—A dispatch says that the Maurepas & Northern Railroad Co. has filed charter with \$500,000 capital. The Mayor of Walker may be able to give information.

Md., Hagerstown.—The Hagerstown & Clearspring Railway Co. is reported to have finally awarded contract to the Burton Construction Co. of Richmond, Va., for its proposed electric line from Hagerstown to Clearspring, Md., 12 miles. L. N. Downs of Hagerstown and others are interested.

Md., Williamsport.—The Cumberland Valley Railroad is reported surveying for a revision of its line between Hagerstown and the Potomac River. G. C. Koons is engineer at Chambersburg, Md.

Miss., Batesville.—C. C. Tye, general superintendent, is quoted as saying that the Batesville & Southwestern Railroad Co. will resume construction as soon as the streams subside. Line is to be about 25 miles long.

Mo., Bismarck.—A letter says that the Bismarck, Bellevue Valley & Western Railroad proposes to build 20 miles of line from Bismarck to Sunlight, Mo., through rough to rolling country. Survey began May 1. E. E. Evans is president.

Mo., St. Louis.—An officer of the Chicago & Northwestern Railway denies the report that the company is negotiating for right of way to enter St. Louis. He does not know of any such proposed line.

Mo., St. Louis.—The East St. Louis & Suburban Railway Co., says a letter, does not propose to do any construction. This refers to its recent charter.

N. C., Andrews.—A dispatch reports plans to build a railroad from Andrews to Aquone, N. C., about 15 miles, to open timber lands along the Nantahala River. D. S. Russell of Andrews may be able to give information.

N. C., Burlington.—The Piedmont Railway & Electric Co., capital \$1,000,000, has been chartered, says a dispatch, to build and operate electric railways connecting Burlington, Graham, Haw River, Hopedale, Carolina and Glenco, with local service for these and any other points within 50 miles of Burlington and Guilford and Alamance counties. J. M. Cook, E. S. Parker, Jr., and A. L. Davis are named as incorporators. J. W. Murray of Burlington, N. C., is mentioned as being prominently interested. Contracts are reported signed to begin work soon to complete the line started by the Burghaw Traction Co. some time ago. One of the incorporators confirms the above and says that extension is contemplated. The address of Messrs. Cook and Davis is Burlington, N. C., and that of Mr. Parker is Graham.

N. C., Canton.—The Tennessee & North Carolina Railway, recently reported purchased by William Whitmer & Sons of Philadelphia, controlling the Champion Lumber Co., is reported reorganized with R. F. Whitmer as president. It will be extended to connect with Canton, N. C. A. J. McMahan is superintendent at Newport, Tenn.

N. C., Charlotte.—The Piedmont Traction Co., says a report, has let contract to the Westinghouse Electric & Manufacturing Co. of Pittsburg to furnish the electrical equipment for its interurban railway to connect Charlotte, N. C., with Gastonia and Kings Mountain, N. C., and Spartanburg, Greenville, Anderson and Greenwood, S. C.

N. C., Charlotte.—The Piedmont Traction Co., it is reported, has awarded a contract to the American Bridge Co. of New York to furnish the steel bridges on its line between Charlotte and Kings Mountain, N. C., and Greenville and Greenwood, S. C.

N. C., Greensboro.—J. W. Fry, chairman of a Chamber of Commerce committee, and others are reported working on the plan to build a railroad from Greensboro via Burlington to Roxboro, Oxford and Henderson, N. C., and funds have been subscribed for preliminary survey.

N. C., Hendersonville.—C. F. White is reported planning to build an electric railway from the Hendersonville depot to Columbia Park and Osceola Lake, about two miles.

N. C., Lillington.—The Raleigh & Southport Railway, says a letter from Raleigh, the headquarters of the company, has completed arrangements to build a branch from Lillington to Sanford, N. C., 25 miles, and work will begin within 10 days. John A. Mills is president at Raleigh, N. C.

Okla., Tulsa.—The Sand Springs Interurban Railway Co., Charles Page of Tulsa, president, is reported to have completed track from Tulsa to Sand Springs, seven miles. W. E. Rhode is general manager.

S. C., Rembert.—Robert E. Sharp says that the proposed railroad from Camden to Sumter, S. C., 31½ miles, is as yet only a project which is being agitated and a name is not yet selected. Route is level.

Tenn., Bells.—A dispatch says that \$16,000 of bonds have been voted in aid of the Birmingham & Northwestern Railway. R. M. Hall, Jackson, Tenn., is president.

Tenn., Dyersburg.—A letter says that Burke, Perdue & Burke of Rocky Ford, Ga., have taken a large contract on the Birmingham & Northwestern Railway at Dyersburg, Tenn., and it is understood they desire several team outfits.

Tenn., Greeneville.—J. O. Fullen, says a dispatch, has the contract to build bridges on the 10½ miles which the Greeneville & Nolichucky Railroad has under construction. About two miles of grade is done.

Tenn., Knoxville.—W. J. Oliver of Knoxville is quoted as saying that he will extend the Knoxville, Sevierville & Eastern Railway from Sevierville, Tenn., to Waterville, N. C., about 35 miles, on the contemplated route to Greeneville, S. C.

Tenn., Nashville.—An officer of the Nashville-Gallatin Interurban Railway Co. is quoted as saying that contracts will be let within several weeks. Route is via Madison, Goodlettsville and Henderson, about 27 miles. Maximum grade, 3 per cent.; maximum curve, 6 degrees. There is some rock work, but nothing very difficult. Two steel bridges and a trestle 1000 feet long will be required. H. H. Mayberry is president at Nashville, Tenn. He is reported saying that actual construction should begin within 60 days, and he expects to have the line in operation within 16 months from June 1.

Tex., Carthage.—The Gulf, Colorado & Santa Fe Railway, it is reported, contemplates building a branch from Carthage to Shreveport, La., about 50 miles. F. Merritt is chief engineer at Galveston, Tex.

Tex., Crystal City.—The Crystal City & Uvalde Railroad Co., says a report, is arranging to build an extension of 25 miles from Gardendale to Dulls, Tex. A. R. Ponder is vice-president and general manager, and E. Breaker is chief engineer at Crystal City, Tex.

Tex., Dallas.—Alvin C. Owsley of Denton, Tex., and others interested have, it is reported, decided to incorporate a company to build the proposed Dallas & Denton Interurban Railway with \$500,000 capital.

Tex., Denison.—The Missouri, Oklahoma & Gulf Railroad has applied for authority to issue \$300,000 of bonds on its line from Denison to the Red River. The company contemplates more construction. J. J. Harrison is chief engineer at Muskogee, Okla.

Tex., Gainesville.—M. A. Hindman of Fort Worth, Tex., says a dispatch, is planning

with others to build an electric railway connecting Gainesville, Tloma and McKinney. Another plan proposed is from Gainesville via Whitesboro to Sherman, Tex.

Tex., Glen Rose.—An official says that the Glen Rose & Walnut Springs Railway Co. has completed surveys from Glen Rose to Fort Worth, Tex., and arrangements have been made to finance construction from Walnut Springs via Glen Rose to Fort Worth, 53 miles. Work will begin within 60 days. J. H. Farr of Glen Rose is president and Woodford M. Davis of Dallas, Tex., is fiscal agent.

Tex., Haskell.—M. R. Hemphill confirms report that he is promoting a railroad plan. Line will be 12 miles from Haskell to Rule, but it is proposed to continue construction to Graham, Tex., 80 miles. He is the contractor. Work will begin in June.

Tex., Kingsville.—The St. Louis, Brownsville & Mexico Railway, it is reported, contemplates building some extensions. E. C. Burgess is engineer of construction at Kingsville, Tex.

Tex., Newcastle.—The Wichita Falls & Southern Railway, says a dispatch, will be extended from Newcastle to Graham, Tex., about 20 miles. R. A. Thompson is chief engineer at Wichita Falls, Tex.

Tex., Paris.—The Paris & Mount Pleasant Railroad Co., says a dispatch, has filed an agreement to issue \$30,000 of bonds per mile, and it is reported, will soon begin construction of its proposed extension from Bogata to Mount Pleasant, 28 miles. N. H. Ragland is general manager at Paris, Tex.

Tex., Pecos.—The Pecos Valley Southern Railway Co., W. L. Carville, president, is reported contemplating an extension to Alpine, Tex.

Tex., Santa Maria.—R. H. Kern of Santa Maria, Tex., and St. Louis, Mo., is reported promoting a plan to build a motor railway to connect with the San Benito line.

Tex., Stephenville.—The Stephenville North & South Texas Railway, it is reported, will soon let contract for an extension from Stephenville to the Thurbur coal fields, about 30 miles. J. M. Kilian is vice-president at Stephenville, Tex.

Tex., Eagle Pass.—W. H. Millikin of Tulsa, Okla., says a dispatch, announces that he will build a railroad from Eagle Pass to Aransas Pass, Tex., through recently-acquired property.

Tex., Wheeler.—A dispatch quotes F. P. Reid of New York, president of the proposed American Central Railroad Co., as saying that contracts have been signed and that work will begin this month.

Va., Norfolk.—The Norfolk & Western Railway, says a report, contemplates building a branch more than a mile long through Atlantic City. C. S. Churchill is chief engineer at Roanoke, Va.

Va., Richmond.—The Henrico & Chesterfield Railroad Co. of Richmond has been chartered to build a line about six miles long from Ridge Church to Bon Air, Va.; capital \$20,000 to \$50,000. Thomas S. Winston is president; W. O. Burton, vice-president; W. C. Schmidt, secretary and treasurer; George V. Bryan, John B. Badenoch and M. G. Wright, directors, all of Richmond.

W. Va., Grafton.—The Fairmont, Grafton & Clarksburg Traction Co., recently chartered, has organized and selected its route; headquarters at Grafton. Officers: President, C. F. Sutherland of Morgantown; first vice-president and general manager, John Roberts of Pittsburg; second vice-president, T. L. Reynolds of Grafton; third vice-president, Arthur Stealey of Fairmont; treasurer, A. B. Corder of Grafton; secretary, C. G. Denton of Pittsburg.

W. Va., Glenville.—The Gilmer & Parkersburg Railroad Co. has been chartered to build a line from Burnsville via Glenville (about 15 miles) to Parkersburg, W. Va., altogether 60 or more miles; headquarters at Glenville; incorporators, S. A. Hays of Glenville, W. Va.; C. M. Bennett, R. F. Kidd, Robert L. Ruddell and D. W. O'Brien; capital \$50,000.

STREET RAILWAYS

Ala., Gadsden.—B. T. Head and associates have obtained a franchise in Alabama City for the proposed street railway from Gadsden to Attalla, the grant being to the Plant City Realty Co.

Ga., Atlanta.—The Georgia Railway & Electric Co., P. S. Arkwright, president, has applied for permission to extend from Buckhead to the boundary of Fulton county, 2½ miles.

Ky., Nortonville.—The Nortonville Traction Co. is reported as saying that it will begin construction of its proposed electric railway within a month; capital \$100,000. Frank I.

Mohr is president, T. F. Callard vice-president and Frank G. Hoge secretary and treasurer, all at Nortonville, Ky.

La., New Orleans.—An official dispatch says that the United Utilities Co. is a reorganization of the Southern Electric Securities Co. Lynn H. Dinkins and others are interested.

N. C., Durham.—The Durham Traction Co. says a report, contemplates building an extension of three miles to the Country Club. R. H. Wright is president.

Okl., Tulsa.—A. A. Small, president of the Oklahoma Union Traction Co., is quoted as saying that he will build two miles more of street railway in Tulsa.

Tex., Cleburne.—Daniel Hewitt is quoted as saying that a two-and-one-quarter-mile extension of the Cleburne Street Railway will be made to Suburban Park.

Tex., Denton.—The Denton Street Railway, says a dispatch, is preparing to build an extension 1½ miles long.

Tex., Greenville.—The Mineral Heights Traction Co., capital \$17,500, has been chartered Greenville. A. R. Nicholson, H. T. Weathers, A. W. Delee and others are the incorporators.

Va., Richmond.—The Richmond & Henrico Railway, it is reported, will build an extension.

Tenn., Chattanooga.—The City Council, it is reported, has passed over the Mayor's veto an ordinance granting a street-railway franchise to C. E. James and associates. Construction must begin within six months.

W. Va., Grafton.—The Grafton Traction Co. is reported to have begun construction of an extension of two miles to Grafton Park. J. T. McGraw is president.

MACHINERY, PROPOSALS AND SUPPLIES WANTED

Manufacturers and others in need of machinery or supplies of any kind are requested to consult our advertising columns, and if they cannot find just what they wish, if they will send us particulars as to the kind of machinery or supplies needed we will make their wants known free of cost, and in this way secure the attention of manufacturers and dealers throughout the country. The Manufacturers Record has received during the week the following particulars as to machinery and supplies wanted.

Air Compressor.—Independent Quarry Co., 256 Spring St., Louisville, Ky., wants prices on air compressor.

Air Compressors.—See "Mining Machinery."

Automatic Planos.—Mendoza & Laroza, 530 Calle Filipinas, Lima, Peru, want information on electrical planos; to be set in motion automatically by insertion of silver money 23 millimeters in diameter and weighing five grammes; to continue playing five minutes (more or less); motor to be constructed for one-phase current, 104 volts, 60 periods.

Barytes.—See "Zinc Ore, etc."

Brass Metal, etc.—Oval Manufacturing Co., Box 188, Siler City, N. C., wants brass or combination of brass metal for making rubbing surface for washboard; sheets of 23 to 32 gauge.

Brick.—Clarence T. Jones and J. G. Barnwell, Chattanooga, Tenn., wants prices on brick.

Bridge Construction.—Highways Commission of Baltimore County, Towson, Md., will receive bids until 11 A. M. May 18 for furnishing and erecting Strauss trunion bascule bridge on Eastern Ave. over Back River; each bid to be accompanied by certified check for \$500; plans and specifications may be seen and obtained in office of Highways Commission, Towson, and of Strauss Bascule Bridge Co., 901 Fort Dearborn Bldg., Chicago, Ill.; Henry G. Shirley, County Roads Engineer.

Bridge Construction, etc.—Commissioners' courts, Burnet and Llano counties, in joint session at courthouse at Llano, Tex., at 1:30 P. M. May 22 will receive plans and specifications for construction of Colorado River bridge at or near Bluffton, Tex.; court will then select, adopt and exhibit selected plans to all bidders; time will then be allowed bidders to prepare and submit bids. Plans, specifications and bids are also invited for construction of following: Bridge across Lampasas River at Blacks Crossing, near Oakalla, Burnet county; across Middle Gabriel on road from Joppa to Bertram, Burnet county; across Hickory Creek on Llano and Mason county road, Llano county; over Wrights Creek, on Llano and San Saba road, Llano county; certified check for \$500; A. H. Willbern, county judge Llano county; J. G. Cook, county judge Burnet county.

Bridge Construction.—Sealed bids received until noon May 27 by John J. Pierce, City Engineer, Jackson, Miss., for erecting two bridges of reinforced concrete arch design, also of a steel girder design; plans, specifications and instructions to bidders on file in City Engineer's office; city reserves usual rights

Bridge Construction.—Charles E. Bolling, City Engineer, Richmond, Va., will receive bids until 4 P. M. May 16 for construction of reinforced concrete arch bridge, complete, over Gillies Creek; plans and specifications may be obtained on application to office of City Engineer; certified check for \$250 to accompany each bid.

Bridge-lowering.—Bids received by undersigned for lowering steel bridge over Bayou Vidal at Point Clear plantation, in Madison parish, Louisiana, at least 15 feet; bridge has span of 185 feet and entire length

is 344 feet, including approaches; bids will be opened by committee appointed to close contract with lowest most responsible bidder; original plan of bridge can be seen at office of Police Jury in Tallulah, La. Address bids to E. L. Maxwell, Mounds, La., or to A. L. Slack, secretary, Tallulah, La.; to be opened 30th of June; F. L. Maxwell, president Police Jury.

Building Materials.—W. H. Birkner, Kyle, Tex., wants prices on deadening felt, metal plaster lath 27 gauge, plaster, sash, doors, plate glass, transoms, etc.

Building Materials, etc.—Bank of Bogalusa, La., wants prices on building materials, including sash, doors and plumbing materials.

Calking Yarn.—See "Pig Lead, etc."

Canning Machinery.—Farmers' Can Co., Oriental, N. C., wants information relative to establishment of cannery and prices on machinery.

Canvas Belting.—Vazquez & Fernandez Box 1069, Cuba 80, Havana, Cuba, want addresses of manufacturers of canvas belting; view to agency.

Cars.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and S. Penn Sq., Philadelphia, Pa., wants four 50 tons capacity all-steel self-clearing coal cars.

Celluloid Collar Machinery.—G. M. Mulholland, 1121 Bedford Ave., Brooklyn, N. Y., wants addresses of manufacturers of and dealers in celluloid collar machinery.

Coal.—Sealed bids received by Board of Water Commissioners, Atlanta, Ga., until 12 o'clock noon May 17 at office, Chamber of Commerce Bldg., for 12 months' supply of coal, about 17,000 tons, to be delivered f. o. b. cars at water-works pumping stations Nos. 1 and 2; No. 1 located on spur tracks of the W. & A. Railroad and S. A. L. Railroad, Chattahoochee River; and No. 2 located on Southern Belt Railroad; deliveries to be made at rate of five cars per week to each station, or in quantities more or less, as ordered by general manager of Atlanta water-works department; specifications for coal furnished general manager on application; W. Z. Smith, general manager.

Coal Bunker, etc.—Department of the Interior, secretary's office, C. A. Thompson, assistant secretary. Sealed proposals, in duplicate, will be received at this department until 2 P. M. May 18 for erection and completion of concrete coal bunker and conveyor machinery for central heating and lighting plant at Freedmen's Hospital and Howard University, Washington, D. C., in accordance with specifications and drawings, copies of which may be obtained upon application to chief clerk of department.

Collar Machinery.—See "Celluloid Collar Machinery."

Coffee-roasting Machinery.—J. G. Hulsbush, 1801 13th St., Tuscaloosa, Ala., wants addresses of manufacturers of coffee-roasting machinery; for small plant.

Conveyor.—Hinton Water, Light & Supply Co., H. Ewart, secretary, Hinton, W. Va., wants coal conveyor of about two cars daily capacity; to take coal from cars, screen and pass into bins; correspondence with manufacturers desired.

Conveying Machinery.—See "Oil-mill Machinery."

Cotton Bags.—Sanford Wilson, Bailey, N. C., wants to correspond with manufacturers of cotton bags for food products.

Crank Shaper.—Department of Commerce and Labor, Lighthouse Service, Office of Lighthouse Inspector, Eighth District, New Orleans, La. Sealed proposals will be received at this office until 10 A. M. May 22 for furnishing and delivering at Mobile, Ala., freight prepaid, 12-inch crank shaper; send for specifications.

Crane.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and South Penn Sq., Philadelphia, Pa., in market for 10 to 20-ton wall crane, motor driven, 230-volt, direct current.

Crushers.—See "Mining Machinery."

Crushing Plant.—Rocky Face Silica Sand Co., Rocky Face, Ga., wants boilers, engines, compressor, etc., for crushing plant of 500 tons daily capacity; immediate delivery.

Curb and Guttering.—The Mayor of Columbus, Miss., will receive sealed bids until noon May 22 for constructing approximately 6000 linear feet concrete curb and gutter or granite curb and concrete gutter, as per plans and specifications on file in Mayor's office; certified check for 10 per cent. of amount of bid; rights reserved; E. S. Donnell, Mayor.

Dam and Lock Construction.—U. S. Engineer Office, Wheeling, W. Va. Sealed proposals for constructing lock and dam No. 15, Ohio River, near New Martinsville, W. Va., will be received until 11 A. M. June 5. Information on application. F. W. Alsaeter, Major, Engineers.

Dike Construction.—United States Engineer Office, Savannah, Ga. Sealed proposals for building and repairing dikes in Savannah River, near Augusta, Ga., received until 12 noon May 31, and then publicly opened. Information on application. Dan C. Klugman, Colonel, Engineers.

Drainage.—Commissioners Bayou Sale Drainage District, New Orleans, La., will receive bids at 920 Hibernia Bldg. until noon June 6 for excavation of drainage canals, construction of levee, erection of pumping plant and such other work as is necessary to complete drainage of subdivisions 1 and 2 of Bayou Sale Drainage District; plans, specifications and necessary information may be obtained from J. F. Coleman & Co., engineers, 920 Hibernia Bldg., New Orleans.

Dredge Hull and Scows.—U. S. Engineer Office, 920 17th St. N. W., Washington, D. C. Sealed proposals for furnishing materials and constructing one dredge hull and three deck scows received until 12 M. June 7, and then publicly opened; information on application; W. C. Langfitt, Lieutenant-Colonel, Engineers.

Dredging.—U. S. Engineer Office, Jacksonville, Fla. Proposals for dredging in Indian River, Florida, will be received until noon June 3. Information on application. George R. Spalding, Captain, Engineers.

Dredging Machinery.—W. E. Small Spoke Manufacturing Co., Corinth, Miss., wants to communicate with manufacturers of dredgeboats and dredging machinery.

Electric Generator.—Central Cotton Oil Co., Jackson, Miss., wants second-hand 230-volt generator; 100 to 150 horse-power.

Electrical Equipment.—Bank of Bogalusa, La., wants prices on electrical equipment for bank and office building.

Electrical Machinery.—Singleton-Smith Company, 405 Mulberry St., Macon, Ga., wants 25-kilowatt 230-volt single-phase 60-cycle belt-driven revolving-field alternator.

Electrical Machinery.—Proposals will be received at office of clerk of committee on electricity, Room 311 City Hall, Richmond, Va., until noon May 17 for furnishing following equipment: 425 K. V. A. alternating-current electric generator; two (or more) 100-light constant-current transformers; 125 (or more) are lamps; 100 automatic are lamp cut-outs; 50 non-automatic are lamp cut-outs; generator switchboard panel; two are lighting panels; four sets are lighting arresters; 550-horse-power turbine water-wheel and governor. All of the above equipment to be of similar type to that now installed in city electric plant; specifications and plans of equipment desired may be seen at office of E. W. Trafford, consulting engineer, 263 National Bank of Virginia Bldg., Richmond, Va.; certified check for \$500 to accompany proposals; proposals to be sealed and marked with bidder's name upon outside of envelope and addressed to S. P. Cowardin, chairman subcommittee on electricity.

Electrical Machinery, etc.—Office of Constructing Quartermaster, Fort Morgan, Ala. Sealed proposals received until 1 P. M. June 2, and then publicly opened, for motor-

driven deep-well pump, electric transmission line, switch panel, transformer, four-inch cast-iron water main, etc. Plans and specifications can be seen at this office or obtained by deposit of \$5 to insure safe return. Edwin F. Barlow, Second Lieutenant, Constructing Quartermaster, U. S. A.

Excelsior Machinery.—O. P. Vines, Peterstown, W. Va., wants information on excelsior manufacture, including demand, profit, etc.; also prices on machinery.

Electrical Material.—Annual estimate for period ending June 30, 1912. Electrical material, including fittings, fixtures, batteries, carbons, wire, cable, mica, paint, cross-arm pins, insulating material, soldering material, hardware, torches, fire pots, etc. Sealed proposals received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10:30 A. M. June 8, and then opened, for furnishing above-mentioned articles. Blanks and general information relating to circular (No. 632) may be obtained from this office or offices of assistant purchasing agents, 24 State St., New York; 614 Whitney-Central Bldg., New Orleans; 1086 North Point St., San Francisco; also from U. S. Engineer offices in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, Chicago, St. Louis, Detroit, Milwaukee, St. Paul, Chattanooga, Louisville, Mobile and Galveston; also at Commercial Club, Kansas City; Chamber of Commerce, Quincy, and Chamber of Commerce and Board of Trade, Tacoma. F. C. Boggs, Captain of Engineers, General Purchasing Officer.

Electric-light Plant.—Vidalia Coffin & Casket Co., Vidalia, Ga., wants 100-light electric plant for factory; no engine needed; has power.

Engine.—O. R. Whitney, 39-41 Cortlandt St., New York, wants first-class 250-horse-power tandem compound automatic high-speed engine; must be in excellent condition, ready for prompt shipment; send full detailed information by first mail, and state where inspection can be made.

Feed Mixer.—Price Hardware & Furniture Co., 112 W. Railroad Ave., Ruston, La., wants to correspond with manufacturers of machine for mixing stock food; hay, stalks, etc.

Filters.—J. C. Welch, 614 N. Pearl St., Dallas, Tex., wants to correspond with manufacturers of water-filtering devices.

Gasoline Engine.—Coeburn Printing Co., Coeburn, Va., wants gasoline engine.

Gasoline Engines.—See "Mining Machinery."

Galvanized Iron.—C. M. Dewberry, Hartsfield, Ga., wants galvanized-iron siding and roofing.

Grading.—City Council, Jonesboro, Ark., will receive bids until May 15 on grading 70,000 cubic yards; profiles and specifications on file in office of Mayor Thomas Burress, to whom address communications.

Granite and Marble.—John Bleckley, chairman building committee, St. John's M. E. Church, Anderson, S. C., wants prices on marble and granite.

Grinding Pan.—Pennsylvania Equipment Co., West End Trust Bldg., Broad and S. Penn Sq., Philadelphia, Pa., wants electrically-driven seven-foot grinding pan for grinding sand for steel foundry.

Hardware.—Vazquez & Fernandez, Box 1069, Cuba 80, Havana, Cuba, want addresses of manufacturers of hardware; view to agency.

Heating Plant.—Bonny Oaks Industrial School, W. B. Davis, president, Chattanooga, Tenn., wants prices on heating apparatus.

Heating Plant, etc.—Huntington & Sears, James Bldg., Chattanooga, Tenn., will receive bids for heating, plumbing and wiring for three-story Masonic Temple.

Hose.—Commissioners of District of Columbia, Washington, D. C. Sealed proposals received until 2 P. M. June 20 for furnishing 15,000 feet (more or less) 2½-inch cotton-covered rubber-lined hose for fire and other departments; specification, form of proposal and other information obtained upon application to property clerk, D. C., Room 330 District Bldg.; Cuno H. Rudolph, Commissioner.

Hose.—Office of Commissioners of District of Columbia, Washington, D. C. Sealed proposals received until 1 P. M. June 20 for furnishing 15,000 feet (more or less) 2½-inch cotton-covered rubber-lined hose, for use in fire and other departments; specifications, form of proposal and other information obtained upon application to Property Clerk, D. C., Room 330 District Bldg.; Cuno H. Rudolph, John A. Johnston, William V. Judson, Commissioners, D. C.

Ice Plant.—M. A. O'Dom, agent, Waynes-

boro, Miss., wants to correspond with manufacturers of ice plants; wants prices on 10-ton compression plant.

Iron.—See "Jail Cells, etc."

Jail Cells, etc.—Georgia Construction Co., Newnan, Ga., wants estimates on cells, steel and iron work for jail building.

Kitchen Equipment.—R. L. Hlaes, purchasing agent Louisiana State University Boarding Club, Baton Rouge, La., wants cooking plant or kitchen outfit.

Knitting Machinery.—J. W. Hollingsworth, Louisville, N. C., wants prices on hosiery-knitting machinery.

Lead.—Office of Commissioners of the District of Columbia, Washington, D. C. Sealed proposals received until 2 P. M. May 15 for furnishing f. o. b. cars Washington 50,000 pounds pig lead for water department. Form of proposal, specifications and necessary information obtained upon application to Property Clerk, D. C., Room 320 District Bldg.

Lighting Plant.—Bonny Oaks Industrial School, W. B. Davis, president, Chattanooga, Tenn., wants prices on lighting plant.

Locomotive.—Chilton Mining & Manufacturing Co., Mountain Creek, Ala., wants second-hand engine.

Locomotive.—Greensboro Supply Co., Greensboro, N. C., wants 20 or 24-ton locomotive (Heisler preferred); could use 15 to 18-ton; would consider 15 to 20-ton Mogul type; standard gauge; good condition and cheap.

Lumber.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., will open bids May 23 for 20,000 feet No. 3 white pine, schedule 3563; delivery navy-yard, Norfolk, Va.; 31,000 feet No. 2 yellow pine, schedule 3563, delivery navy-yard, Charleston, S. C.; for copies apply to navy pay office nearest navy-yard.

Lumber, etc.—Sealed proposals will be received at office of General Purchasing Officer, Isthmian Canal Commission, Washington, D. C., until 10:30 A. M. May 31, and then opened, for furnishing lumber and creosoted piles; blanks and general information relating to this circular (No. 631) may be obtained at above office or offices of assistant purchasing agents, 24 State St., New York; 55 National Realty Bldg., New Orleans; 1086 North Point St., San Francisco; also from U. S. Engineer Office in Seattle, Los Angeles, Baltimore, Philadelphia, Pittsburgh, Boston, Buffalo, Cleveland, Cincinnati, St. Paul, Detroit, Milwaukee, Chicago, St. Louis, Chattanooga, Louisville, Mobile and Galveston; Commercial Club, Kansas City; Chamber of Commerce, Quincy, Ill.; and Chamber of Commerce and Board of Trade, Tacoma; F. C. Rogers, Captain, Corps of Engineers, U. S. A., General Purchasing Officer.

Macadamizing.—Highways Commission of Baltimore County, Towson, Md., will receive bids until noon May 18 for grading and macadamizing about 3400 feet of Boyce Ave., ninth district; certified check \$100; plans and specifications on file with Highways Commission, Towson; Henry G. Shirley, County Roads Engineer.

Machinery.—Vazquez & Fernandez, Box 1063, Cuba 80, Havana, Cuba, want addresses of manufacturers of machinery; view to agency.

Malleable Castings.—J. L. Huggins & Co., Zolfo, Fla., wants to correspond with foundrymen making malleable castings.

Marble.—See "Granite and Marble."

Meters.—Sealed proposals, endorsed "Proposals for Meters," will be received at Bureau of Yards and Docks, Navy Department, Washington, until 11 A. M. May 27, and then there publicly opened, for air, steam, water and electric meters for navy-yards and naval stations. Specifications can be obtained on application to bureau. R. C. Holliday, Chief of Bureau.

Metals.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., will open bids May 23 for 22,000 pounds hot-rolled or forged steel, schedule 3560, delivery navy-yard, Washington, D. C.; for copies apply to navy pay office nearest navy-yard.

Mining Machinery.—Wayne Young, Mena, Ark., wants air drills, air compressors, 100-horse-power engine, 100-horse-power boiler, 100-ton-capacity jigs, ore crushers, hoist, pumps; can use second-hand if good condition. Send description and prices; also prices on 50 and 100-horse-power oil and gasoline engines.

Mining Machinery.—Dunham & Howerston Mining Co., 124 Keystone Hotel, Joplin, Mo., is receiving bids on lead and zinc-mining machinery.

Mining Machinery, etc.—Pierce Coal & Lumber Co., F. W. Pierce, manager, Bridgeport, Ala., wants mining machinery and equipment.

Mining Machinery.—Frederick Oswald, Box 443, Mena, Ark., wants 50 and 100-horse-power oil and gas engine, or crusher, jigs, etc.; send full details.

Naval Supplies.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., will open bids May 21 for two gasoline engines, schedule 3558, delivery navy-yard, Norfolk, Va.; one wood-turning lathe, schedule 3557, delivery navy-yard, Charleston, S. C.; three steel tanks, schedule 3556, delivery navy-yard, Washington, D. C.; for copies apply to navy pay office nearest navy-yard.

Naval Supplies.—Navy Department, Bureau of Supplies and Accounts, Washington, D. C., will open bids May 23 for miscellaneous magnesite pipe covering, miscellaneous asbestos millboard and felling, schedule 3566; 20,000 pounds of soap powder, schedule 3567; delivery navy-yard, Norfolk, Va.; for copies apply to navy pay office nearest navy-yard.

Novelty Manufacturers.—A. J. Hoback Jr., Roanoke, Va., wants to correspond relative to placing order for manufacture of sanitary stamp molder; material mainly hard rubber.

Oil Engines.—Wendell & MacDuffie Company, 165 Broadway, New York, wants addresses of manufacturers of 5 to 50-horse-power engines to operate with crude oil or kerosene; engines for lighting or pumping.

Oil Engines.—Duxets & Son, 50 Church St., Hudson Terminal Bldg., New York, want two second-hand oil engines, 15 to 35 horsepower.

Oil-mill Machinery.—Rowesville, Cotton Oil Co., E. N. Chisholm, president, Rowesville, S. C., will want prices on seed-cleaning machinery, elevators and conveyors and hull packer.

Office Furnishings.—Bank of Bogalusa, La., wants prices on office furnishings.

Paving.—H. A. McSpadden, Town Clerk, Fort Payne, Ala., will receive bids until 2 P. M. May 15 for construction of certain cement sidewalks and gutters; plans and specifications on file in office of Town Clerk.

Paving.—H. L. Shaner, City Engineer, Lynchburg, Va., will receive bids until noon May 17 for paving Jefferson St. from 9th to Washington St.; bids to be made on blank forms to be obtained at office of City Engineer; certified check \$2000 plans can be seen and specifications and proposal forms obtained at office of City Engineer.

Paving.—See "Sewer Construction, etc."

Paving.—City of Gadsden, Ala., will let contract about June 8 for about 4000 linear feet five-foot sidewalk; Chas. L. Marsh, City Engineer, Box 275.

Pig Lead, etc.—Harris Hardware Co., Washington, N. C., wants prices on pig-lead and caking yarn; for water-works construction.

Pipe.—See "Vitrified Pipe."

Pipe.—John G. Duncan Company, Box 265, Knoxville, Tenn., wants 1000 feet 2½-inch second-hand pipe. Give jobbers' prices first mail.

Plumbing.—See "Heating Plant, etc."

Plumbing.—See "Building Materials, etc."

Plumbing.—Bonny Oaks Industrial School, W. B. Davis, president, Chattanooga, Tenn., wants prices on plumbing and bathroom fixtures.

Pulleys.—Central Broom Manufacturing Co., Conway, Ark., wants prices on wood pulleys.

Pump.—See "Electrical Machinery, etc."

Rails.—Chilton Mining & Manufacturing Co., Mountain Creek, Ala., wants four miles second-hand 50-pound rails.

Rails.—John G. Duncan Company, Box 265, Knoxville, Tenn., wants 600 feet 16 to 35-pound second-hand relay rail; immediate shipment.

Railroad Equipment, etc.—M. R. Hemphill, Haskell, Tex., will want small engine, four drivers; ties, 56-pound rails; box cars, and one baggage and mail car.

Refrigerating Plant.—H. R. Leonard, London Bridge, Va., wants prices on new or second-hand refrigerating plant for small dairy.

Refrigerating Plant.—R. L. Himes, purchasing agent Louisiana State University Boarding Club, Baton Rouge, La., wants refrigerating plant for University Boarding Club of 300 members.

Revetment Rock.—U. S. Engineer Office, 3338 St. Charles Ave., New Orleans, La. Sealed proposals for furnishing about 26,000 tons of rock for bank revetment received until 11 A. M. June 6, and then publicly opened. Information on application. H. Burgess Major, Engineers.

Road Construction.—Bids will be received until noon May 15 for construction of

120 miles of public roads in Union county, Mississippi, all earth construction; profiles and specifications on file in chancery clerk's office, New Albany, Miss. Address C. S. Culless, clerk, for information; W. G. Blas, chairman Road Commission.

Road Construction.—Carroll County Commissioners, Westminster, Md., will receive bids until noon May 15 for construction of section of State Aid Highway on Black Rock Rd., between Hampstead and Baltimore county line, about 1.12 miles; bids to be made on blank forms to be obtained at office of State Roads Commission, Union Trust Bldg., Baltimore, Md.; each bid to be accompanied by certified check for \$300; plans can be seen and forms of specifications and contract obtained at office of State Roads Commission; George W. Brown, J. S. Pink and Benk F. Stansbury, board; O. E. Doderer, clerk.

Road Construction.—Bids will be received until 10 A. M. May 13 for construction of road from J. B. Steers' to Hill City extension; plans and specifications at office of county judge, Maysville, Ky.; J. O. Pickrell, chairman, Maysville, Ky.

Road Machinery.—H. H. Trundle, Leesburg, Va., wants prices on second-hand road machinery, including steam rollers, traction engine, stone crusher, etc.

Road Roller.—Notice is hereby given that board will at noon on 6th of June receive and open bids for one 8 to 10-ton road roller; usual rights reserved; S. T. Silstrunk, clerk Board County Commissioners, Ocala, Fla.

Roofing.—Hanshaw & Dalton, San Angelo, Tex., wants information and prices on roofing for church roof garden.

Rubber Goods.—See "Novelty Manufacturers."

Safe, Vault, etc.—First National Bank of Huttig, Ark., wants prices on safe, vault and other bank fixtures.

Sanitary Carts, etc.—C. G. Vile, Mayor, Taylorsville, N. C., wants to correspond with dealers in sanitary carts and buckets for cleaning house wells (privies).

Sewer Construction.—Town Council, Auburn, Ala., will receive bids until 8 P. M. May 15 for construction of about 7423 feet of eight-inch sanitary sewers; each bid to be accompanied by certified check for \$300; plans, profiles and specifications may be seen at office of engineer, G. N. Mitcham, Auburn, or copies of profile and specifications may be obtained by mail upon payment of \$5; J. W. Wright, Mayor; R. W. Burton, Town Clerk.

Sewer Construction.—Rob Parman, City Clerk, Oklahoma City, Okla., will receive bids until 10 A. M. May 16 for construction of sanitary lateral sewer in Schilling's Addition, Bancroft's Addition, Gas Heights Addition and Bath Highland Addition; plans and specifications on file in office of City Clerk; certified check 3 per cent. of bid.

Sewer Construction.—Bids will be received at office of T. C. Hughes, City Engineer, Tulsa, Okla., until 5 P. M. May 15 for construction of sanitary lateral sewer in sewer district No. 60, Crosbie Heights Addition, and submain on 4th St. and St. Louis & San Francisco Railroad right of way in city of Tulsa; also sewer district No. 60, Crosbie Heights Addition, and submain on 7th St. in city; two sewers in sewer district No. 59, Crosbie Heights Addition, one to have submain on 3d St. in city; plans, profiles and specifications on file in office of T. C. Hughes, City Engineer; bids to be made upon official proposal sheets of city; certified check 5 per cent. of bid.

Sewer Construction.—J. Edward Schell, Mayor, and Board of Aldermen, Frederick, Md., will receive bids until 11 A. M. May 24 for constructing about 4000 linear feet sewers (6 to 42 inches), together with manholes, inlets and lampholes; certified check \$250; also until same date for paving 16,000 square yards and for furnishing and setting \$500 linear feet curbing; certified check \$1250. Plans, specifications. Instruction to bidders and forms of proposal may be had from City Engineer, E. C. Crum, upon payment of \$2.

Sewer Construction.—Baltimore (Md.) Board of Awards will receive bids at office of J. Sewell Thomas, City Register, City Hall, until 11 A. M. May 24 for constructing office and laboratory building at Back River disposal works and for constructing sanitary lateral sewers in district 36A, as shown on plans on file in office of Calvin W. Hendrick, chief engineer of Sewerage Commission; specifications and plans can be obtained upon application at office of Sewerage Commission, Room 904 American Bldg., Baltimore; following charges will be made for each specification and blueprint: Office and laboratory building, etc., sanitary contract No. 60, \$10; lateral sewers in district 36A, sanitary contract No. 66, \$5; certified checks as follows: Contract No. 60, \$1500; contract No. 66, \$3000;

approximate quantities, contract No. 66, 40,000 linear feet terra-cotta pipe sewer 8 to 22 inches diameter; 15,000 linear feet six-inch house connections; Charles England, chairman Sewerage Commission.

Sewage-disposal Plant.—Board of Revenue of Jefferson county, John Gong, president, Birmingham, Ala., will receive bids until noon May 22 for furnishing material, labor and equipment necessary to build sewage-disposal plant; plans and specifications on file with L. H. Salter, sanitary engineer, Room 101 Courthouse.

Steel.—See "Jail Cells, etc."

Steel.—Sealed proposals, endorsed "Proposals for structural steel for seven buildings," will be received at Bureau of Yards and Docks, Navy Department, Washington, until 11 A. M. June 3, and then and there publicly opened, for about 2500 tons of fabricated structural steel and certain castings for seven buildings, delivered at naval station, Pearl Harbor, Territory of Hawaii. Plans and specifications can be obtained on application to bureau or to commandant of naval station named. R. C. Holliday, Chief of Bureau.

Vapor Bath.—W. M. Bomar, Spartanburg, S. C., wants vapor-bath equipment.

Vaults.—Firemen's Charitable Benevolent Association, McCloskey Bldg., 320 St. Charles St., New Orleans, La. Sealed proposals received on May 25 for construction of 48 vaults in Greenwood and 48 vaults in Cypress Grove cemeteries, in accordance with plan and specifications on file; John Fitzpatrick, president.

Vitrified Pipe.—Curtis & Shumway, Box 406, Stratton, Pa., want addresses of Pennsylvania, Maryland and New York manufacturers of vitrified pipe.

Washboard Machinery.—Mitchner & Co., Franklinton, N. C., want prices, etc., on equipment to make washboards; yellow pine and poplar wood.

Water Tanks.—Bonny Oaks Industrial School, W. B. Davis, president, Chattanooga, Tenn., wants prices on water tanks.

Water-works.—Sealed proposals received by Board of Water and Light Commissioners, Concord, N. C., until 3 P. M. May 31 for building auxiliary pumping station, furnishing turbine pumps and motors, about two miles 12-inch cast-iron pipe, reinforced concrete 1,000,000-gallon sedimentation reservoir and coagulating basin and 1,000,000-gallon filter plant; plans and specifications on file at office of superintendent, and copies of specifications, forms of proposal, etc., may be obtained from engineer, Gilbert C. White, at Durham, N. C.; no bid considered unless accompanied by certified check for \$500. Usual rights reserved. Chas. B. Wagoner, chairman; Geo. H. Rutledge, superintendent.

Water-works Material.—Sealed proposals received by clerk of Council, Homer, La., until noon May 15 for following: Two high-pressure horizontal return-tubular boilers, size 66 inches by 18 feet; three-quarter front, galloway frame setting and steel casing; steel smokestack 48 inches diameter, 80 feet high, No. 8 gauge steel to set on foundation independent of boilers, steel horizontal breeching for two boilers of No. 8 gauge steel; two standard underwriter fire pumps, capacity 500 gallons per minute; straight line air compressor, size 10x12-10 inches; long air receiver, 36 inches by 8 feet; two boiler feed pumps, 6x16 inches; two air lifts; feed-water heater, 150 horse-power; steel tower and tank, complete; five miles of cast iron pipe, 4, 6 and 8 inches, with all fittings, valves and hydrants for complete installation; certified check for 5 per cent. of total amount of bids, made payable to G. G. Gill, town clerk; plans and specifications obtained from engineer, H. W. Wright, upon receipt of check for \$500; usual rights reserved.

Well-drilling.—Sealed bids solicited by City Council, Titusville, Fla., until June 1 for drilling eight-inch artesian well, 115 feet deep, to be cased 95 feet, with heavy lap-welded wrought-iron drive pipe, drillers test for quantity of supply at least 10 hours. Send bids in sealed envelope marked "Bids," enclosed in envelope to B. R. Wilson, Mayor.

Woodworking Machinery.—High Point Manufacturing Co., J. J. Jackson, president, West Broad St., Hight Point, N. C., will open bids June 1 on machinery to manufacture piano cases, stools and benches.

Woodworking Machinery.—See "Woodworking Machinery."

Woodworking Machinery.—F. A. Thole, 509 W. 65th St., Seattle, Wash., wants addresses of makers of automatic machinery for manufacturing toothpicks and clothespins.

Zinc Ore, etc.—Chas. R. Fife Commission Co., 1062 Pierce Bldg., St. Louis, Mo., wants mixed zinc and tiff (barytes) ore.

Wiring.—See "Heating Plant, etc."

INDUSTRIAL NEWS OF INTEREST

Large Concrete Brick Order.

The Houston Brick & Tile Co., Houston, Tex., manufacturer of concrete brick, has just received a contract for 300,000 bricks to be used in a block of brick buildings to be erected at Texas City.

Hosiery Mill for Sale.

The hosiery mill referred to in this column April 27 as offered for sale or lease should have been designated as the Wisdom Hosiery Mills of Paducah, Ky., which has been placed in the hands of F. P. Toof, agent of the Cohankus Manufacturing Co. of Paducah. The sale had no connection with other than the Wisdom Hosiery Mills.

Establishing Hardware Business.

Mr. Charles Gann, for more than 10 years connected with the wholesale and retail firm of E. L. Wilson Hardware Co. of Beaumont, Tex., and who was for a number of years manager of the retail department, has resigned his position to engage in the jobbing and retail hardware business on his own account. He will have as associates well-known business men of Beaumont and will conduct a modern hardware business covering all its branches.

Three New Offices Established.

The Dahlstrom Metallic Door Co., executive offices and factory at Jamestown, N. Y., announces that new offices of the company have been established in Cleveland, Detroit and Pittsburgh. W. D. Callinan is in charge of the Cleveland office at 905 Garfield Bldg.; S. C. Malmberg is in charge of the Detroit office, 1314 Ford Bldg., and L. H. Gibson is in charge of the Pittsburgh office, 2435 Henry W. Oliver Bldg. It is also announced that Alva A. Griner, formerly Western manager, has been transferred and placed in charge of the New York office, 229 Broadway. A. T. Hansen will take Mr. Griner's place as manager of the Chicago office.

Universal Vanadium Co.

The Universal Vanadium Co. has been organized to act as selling agent in conjunction with the Vanadium Sales Co. of America for the products of the American Vanadium Co., both companies having offices in the Frick Bldg., Pittsburgh. The officers and directors of the Universal Vanadium Co. are Edward M. McIlvaine, president, 30 Church St., New York; Col. Millard Hunsiker, vice-president, 23 Rue de la Paix, Paris; James C. Gray, secretary and treasurer, Frick Bldg., Pittsburgh; Joseph W. De Wyckoff, European representative, 64 Victoria St., Westminster, London; E. Marshall Fox, Wetley Rocks, Staffordshire, Eng.; Sylvester D. Townsend, Jr., Wilmington, Del., and William McIlvaine, Reading, Pa. The products including ferro-vanadium are sold in every manufacturing country in the world. Pamphlets and folders of interest in connection with the use and advantages of vanadium, issued by the company, refer to vanadium as "The Master Alloy," and as new discoveries of vanadium-bearing ore are made in the United States, in addition to the mines in Peru. Its importance as an alloy increases. It has been used in quantities varying from .07 to .19 per cent. in steel, depending on quality required. The value of this alloy is apparent when it is found that with this small addition, elastic limits as high as 195,000 and tensile strength of 208,000 pounds per square inch are obtained in chrome-vanadium spring steel. The uses of vanadium embrace practically all the metal trades, as it is found of great value as an alloy with iron and steel, copper, brass and bronze, aluminum and lead. It has the triple effect of cleansing, strengthening and toughening, thus giving great tenacity and power, while readily yielding to mechanical manipulation.

New Corkboard Factory.

The United Cork Companies, Hoboken, N. J., announce the removal of their factory into the new plant at Lyndhurst, N. J. This factory is on the main line of the D. L. & W. R. R., and occupies a plot of ground covering nine acres. Spur tracks entering the premises provide the best of facilities for making prompt shipments. The daily capacity is 60,000 feet B. M. of corkboard, and there are three warehouses capable of containing three times this quantity. In addition to the well-known "Star" or waterproof corkboard previously manufactured, the factory is now equipped to make an all-cork or compressed board, which is placed on the market under the name of "Crescent." Exhaustive tests as to heat transmission have been made by recognized authorities, and the high character of these boards in this respect has been thoroughly established. A

large number of experienced men are employed in this factory. The general sales department is located in the Hudson Terminal Bldg., 50 Church St., New York, where all business pertaining to the sale of the products of the United Cork Companies will be handled. Peter Binzel, Jr., is in charge of this general sales department, and Chas. A. Hovey, formerly in charge of the Washington office, will after June 1 be assistant sales manager. Both Mr. Binzel and Mr. Hovey are thoroughly familiar with all phases of refrigerating engineering and all classes of insulation construction. The Southeastern territory from Maryland and Delaware to Georgia and Florida will be under the special supervision of Mr. Hovey. Sales offices are maintained in St. Louis, Dallas and other cities. The facilities in the new plant are such that the smallest orders for insulation, as well as the largest contracts, can be handled with dispatch. Among recent contracts made is the installation for the White Sulphur Springs Hotel, White Sulphur Springs, W. Va., embracing six cold-storage rooms and five refrigerators. The insulation to be "Star" corkboard throughout. The Frick Company of Waynesboro, Pa., has the contract for the ice-making and refrigerating machinery.

TRADE LITERATURE.

Northrop Looms in Southern States.

"Cotton Chats" No. 101, published by the Draper Company, Hopedale, Mass., concludes four pages of extracts from customers' letters and from reports of its salesmen testifying to the economy of the Northrop looms, by a statement of the number of these looms in use in the different States, including orders to January 1, 1911. The total as given for the Southern States is 117,417; for the New England States, 78,715, and for the Middle and Western States, 4615.

General Agents in Southern States.

The Scruggs-Weborg Company of Birmingham, general agent for the Southern States of the General Fireproofing Co. of Youngstown, O., has opened a branch office in Atlanta, and will establish another at New Orleans on May 15. The Atlanta office is in charge of A. J. Rappole, an experienced office-supply man, but the New Orleans appointment has not yet been announced. This company handles the "All-Steel" line of office furniture, fixtures, file cases and safe cabinets manufactured by the General Fireproofing Co., and it has already built up a large volume of business.

Artistic Concrete Surfaces.

Recently much attention has been devoted to surface treatment of concrete structures, and some artistic and pleasing effects are being obtained. This is serving the purpose of eliminating objections raised by architects and others to the use of concrete for exposed surfaces. From an artistic standpoint the ordinary, untreated concrete surface, it must be admitted, is anything but pleasing in appearance, being a comparatively lifeless surface of a sombre, grayish color. It makes no difference what cement, sand or aggregate is used or how they are mixed, the surface is always the same, and it has been this monotonous similarity in the appearance of all untreated concrete surfaces that has caused architects to object so strongly to their use for ornate structures. Those who have devoted study to the subject have demonstrated that by using various kinds of aggregates and by brushing, rubbing and tooling the surface causes the aggregate to be exposed and a variety of exposed surfaces can be secured. The results of this work will cause concrete to be more generally used for the best grade of structures than perhaps any other previous development in the industry. An interesting illustrated treatise on this subject has been published by the Universal Portland Cement Co. of Chicago and Pittsburgh, under the title of "Concrete Surfaces." The subject is considered in thorough detail, and directions are given for properly securing the desired effects of exposed surfaces, but numerous illustrations (among them several color plates) show in detail the splendid results that are being achieved. Copies of this booklet will be sent without cost to inquirers.

Loom Litigation.

Draper Company, Hopedale, Mass., have issued the following in their "Cotton Chats": "We have just received a circular of the Stafford Company, dated April 11, 1911, which is so drawn as to give the impression that the Circuit Court has decided in favor of the Stafford Company a suit brought against the Draper

Company for infringement of a patent owned by the Stafford Company. As a matter of fact, the suit was brought by the Draper Company against the Stafford Company on the so-called 'Feeler Patent' No. 527,014 owned by the Draper Company. Judge Aldrich has decided that the patent is not infringed, and under advice of our counsel we have taken an appeal to the Circuit Court of Appeals. We again advise the trade that two other infringement suits are now pending against the Stafford Company, one brought by the Draper Company and the Crompton & Knowles Loom Works for infringement of the Coldwell & Gildard patent; the other brought by the latter company for infringement of the Smith patent. These suits will be prosecuted to speedy hearing. No suit has ever been brought by the Stafford Company, complaining that devices manufactured by the Draper Company infringe any letters patent."

FINANCIAL NEWS

The MANUFACTURERS RECORD invites information about Southern financial matters, items of news about new institutions, dividends declared, securities to be issued, openings for new banks, and general discussions of financial subjects bearing upon Southern matters.

Review of the Baltimore Market.

Office MANUFACTURERS RECORD,

Baltimore, Md., May 10.

The Baltimore stock market continued active during the past week, with a good demand for bonds and a general tendency toward higher prices.

In the trading United Railways common sold at 18½; do. incomes, 64¼ to 64½; do. funding 5s, 86½ to 87¼, with last sale at 86¾; do. scrip, 87; United 4s, 84½ to 84¾; United Electric Light & Power 4½s, 93; Consolidated Gas, Electric Light & Power, 90; do. preferred, 96½ to 97¼; do. 4½s, 88¾ to 89½; do. notes, 100¼; Consolidated Gas 4½s, 97¾ to 98; Seaboard Air Line common, 26¾; Seaboard Company common, 27¼ to 26¾; do. second preferred, 59 to 58½; Seaboard 4s, stamped, 87¼ to 87½; do. adjustment 5s, 80 to 79¾; Consolidated Cotton Duck, 4 to 3; do. preferred, 20 to 18; Mt. Vernon Woodberry Cotton Duck 5s, 75½ to 74¾; G. B.-S. Brewing 4s, 44¼ to 43½.

Bank stock sold as follows: First National, 148 to 149; Merchants', 190; Citizens', 41; Old Town, 14. Maryland, 26½. Mercantile Trust sold from 144 to 146. American Bonding, 79; Maryland Casualty, 90 to 87, with last sale at 88; Fidelity & Deposit, 152 to 150; United States Fidelity, 160; Continental Trust, 227 to 227½; Baltimore Trust, 165 to 166; Fidelity Trust, 222; Maryland Trust, 81½.

Other securities were traded in thus: Augusta Railway & Electric 5s, 102¾; Atlantic Coast Line of Connecticut, 237½; Consolidation Coal, 103; Baltimore City 5s, 1916, 104; do. 4s, 1954, 103; do. 3½s, 1927, 85; do. 3½s, 1928, 93 to 93½; do. 4s, 1958, 103; do. 3½s, 1980, 89¼ to 89; Fairmont & Clarksburg Traction 5s, 99½ to 100½; Northern Central Railway stock, 127¾ to 126½; Pennsylvania Water & Power 5s, 89¼; Anacostia & Potomac 5s, 101 to 101¼; Augusta & Aiken Railway & Electric Corporation common, 20 to 20¼; Chicago Railway 5s, 100 to 99½; Fairmont Coal 1st 5s, 97¼; Houston Oil common, 8¼ to 8½; do. preferred, 55 to 55½; United States Steel common, 76¾; Virginia Railway & Power 5s, 97½; Western Maryland 4s, 87; Carolina Power & Light 5s, 92½; Norfolk & Portsmouth Traction 5s, 90 to 89½; Norfolk & Atlantic Terminal 5s, 93; Virginia Midland 5th, 106¾ to 107; Atlantic Coast Line of South Carolina 4s, 97¼ to 97; Atlantic Coast Line convertible debenture 4s, 97¾ to 97½; Baltimore Electric 5s, stamped, 94¾ to 95; Florida East Coast 4½s, 96¼; Jamison Coal & Coke, George's Creek 5s, 94½; Maryland Electric 5s, 99¼ to 99¾; Norfolk Railway & Light 5s, 100; Western Maryland 4s, 87 to 87¼; West Penn Traction 5s, 97; Canton Company (Baltimore), 116; Baltimore City Passenger 5s, 100¾; Virginia Century, 85¾ to 86; Carolina Central 4s, 92 to 92½; Georgia Pacific 1st, 113¼; Maryland 3s, 1914, 96¾; Alabama Consolidated Coal & Iron preferred, 72 to 70; Charleston Consolidated Electric 5s, 96; City & Suburban (Baltimore) 5s, 105½; Buffalo & Susquehanna 4½s, 1953, 35; Georgia & Alabama consolidated 5s, 104¾ to 105¼; Atlantic Coast Line consolidated 4s, 95¼; Consolidation Coal, 103;

do. 1st paid, 28½; Milwaukee Refunding 4½s, 92¾ to 93; Washington & Vaudeville 4½s, 95¼ to 95¾; Baltimore Brick 5s, 82½; Pennsylvania Water & Power common, 61¼; Newport News & Old Point 5s, 93½; Baltimore Traction (North Baltimore Division) 5s, 110; Baltimore Electric preferred, 41½; Norfolk & Carolina 1st 5s, 100¾.

SECURITIES AT BALTIMORE.

Last Quotations for the Week Ended May 10, 1911.

| Railroad Stocks. | Par. | Bid. | Asked. |
|-----------------------------|------|------|--------|
| Atlantic Coast of Conn. | 100 | 235 | 240 |
| Charleston Consolidated | 50 | 34 | 40 |
| Georgia Sou. & Fla. | 100 | 31 | 40 |
| Georgia Sou. & Fla. 2d Pfd. | 100 | 31 | 40 |
| Norfolk Railway & Light | 25 | 25½ | 26 |
| Norfolk & Ports. Trac. new | 100 | 52 | 54½ |
| Seaboard Co. Common | 100 | 27 | 27 |
| Seaboard Co. 1st Pfd. | 100 | 87 | 87 |
| Seaboard Co. 2d Pfd. | 100 | 58½ | 59 |
| Seaboard Air Line Common | 100 | 43½ | 44½ |
| Seaboard Air Line Pfd. | 100 | 43½ | 44½ |
| United Ry. & Elec. Co. | 50 | 18 | 18½ |

| Bank Stocks. | Par. | Bid. | Asked. |
|-----------------------|------|------|--------|
| Bank of Baltimore | 100 | 154 | 154½ |
| Bank of Commerce | 100 | 31 | 31 |
| Citizens' | 100 | 41½ | 42 |
| Drillers & Mechanics' | 100 | 222 | 225 |
| Farmers & Merchants' | 40 | 51 | 51 |
| First National | 100 | 148 | 150 |
| Howard | 100 | 13¾ | 14 |
| Marine | 30 | 42 | 42 |
| Maryland | 20 | 26½ | 27 |
| Mechanics' | 100 | 28½ | 29 |
| Merchants' | 100 | 190 | 191 |
| Old Town | 100 | 13¾ | 14 |
| Union | 100 | 155 | 160 |
| Western | 20 | 40 | 40 |

| Trust, Fidelity and Casualty Stocks. | Par. | Bid. | Asked. |
|--------------------------------------|------|------|--------|
| American Bonding | 25 | 79 | 79 |
| Baltimore Trust | 100 | 165 | 168 |
| Continental Trust | 100 | 227½ | 228½ |
| Fidelity & Deposit | 50 | 148 | 150 |
| Fidelity Trust | 100 | 229 | 230 |
| Maryland Trust | 100 | 81 | 85 |
| Maryland Trust Pfd. | 100 | 112½ | 116 |
| Maryland Casualty | 25 | 85 | 89 |
| Mercantile Trust & Deposit | 50 | 145 | 150 |
| Union Trust | 50 | 71 | 71 |
| U. S. Fidelity & Guaranty | 100 | 158 | 158 |

| Miscellaneous Stocks. | Par. | Bid. | Asked. |
|-------------------------------|------|------|--------|
| Ala. Con. Coal & Iron | 100 | 39 | 40 |
| Ala. Con. Coal & Iron Pfd. | 100 | 70 | 72½ |
| Con. Cotton Duck Common | 50 | 3 | 7 |
| Con. Cotton Duck Pfd. | 50 | 17¼ | 18 |
| Con. Gas, Elec. Lt. & P. Com. | 100 | 90 | 90 |
| Con. Gas, Elec. Lt. & P. Pfd. | 100 | 97 | 97½ |
| Consolidation Coal | 100 | 102½ | 103 |

| Railroad Bonds. | Par. | Bid. | Asked. |
|-------------------------------------|------|------|--------|
| Atlantic Coast 1st 4s | 95½ | 95½ | 96½ |
| Atlantic Coast Conv. Deben. 4s | 100 | 97½ | 97½ |
| At. Coast (Conn.) 4s. Cfs. 5-20s. | 100 | 92½ | 93½ |
| Atlantic Coast (Conn.) 5s. Cfs. | 100 | 95 | 95½ |
| Atlantic Coast (S. C.) 4s. Cfs. | 100 | 97 | 97½ |
| Atlantic Coast L. & N. Col. Tr. 4s. | 100 | 94½ | 94½ |
| Balto. & Annap. S. L. 5s. | 100 | 65 | 69 |
| Balto. & Harris. 5s. | 100 | 107 | 107 |
| Carolina Central 4s. | 100 | 92½ | 93 |
| Charleston & West. Car. 5s. | 100 | 107 | 107 |
| Coal & Coke Railway 5s. | 100 | 93 | 95½ |
| Coal & Iron Railway 5s. | 100 | 101½ | 101½ |
| Florida Southern 4s. | 100 | 91 | 92 |
| Georgia & Alabama 5s. | 100 | 104 | 105½ |
| Georgia & Florida 5s. | 100 | 73½ | 80 |
| Georgia, Car. & North. 1st 5s. | 100 | 104½ | 105 |
| Georgia Pacific 1st 6s. | 100 | 113 | 114 |
| Georgia Southern & Fla. 1st 5s. | 100 | 106½ | 106½ |
| Petersburg Class A 5s. | 100 | 107½ | 107½ |
| Piedmont & Cumberland 1st 5s. | 100 | 100 | 100 |
| Potomac Valley 1st 5s. | 100 | 105 | 105 |
| Richmond & Petersburg 6s. | 100 | 106½ | 106½ |
| Savannah, Fla. West. 5s. | 100 | 110½ | 111 |
| Savannah, Fla. & West. 6s. | 100 | 125 | 125 |
| Seaboard 4s. Stamped | 100 | 87½ | 87½ |
| Seaboard Adjustment 5s. | 100 | 78½ | 80 |
| Seaboard & Roanoke 5s. | 100 | 106 | 107½ |
| Seaboard & Roanoke 6s. | 100 | 105 | 108 |
| South Bound 5s. | 100 | 107 | 108 |
| Suffolk & Carolina 5s. | 100 | 102½ | 104 |
| Virginia Midland 5th 5s. | 100 | 107 | 107 |
| Western Maryland 4s. | 100 | 87 | 87½ |
| West Va. Central 1st 6s. | 100 | 109½ | 109½ |
| Wilmington & Weldon 4s. | 100 | 96 | 96 |
| Wilmington & Weldon 5s. | 100 | 110 | 110 |
| Washington & Vandemere 4½s. | 100 | 95½ | 95½ |

| Street Railway Bonds. | Par. | Bid. | Asked. |
|------------------------------------|------|------|--------|
| Anacostia & Potomac 5s. | 101 | 101½ | 101½ |
| Ala. Street Railway 5s. | 100 | 105 | 105½ |
| Augusta Railway & Electric 5s. | 102½ | 101½ | 101½ |
| Baltimore City Passenger 5s. | 100½ | 100½ | 100½ |
| Baltimore, Sp. Pt. & C. 4½s. | 100½ | 99½ | 97½ |
| Baltimore Traction 1st 5s. | 100½ | 107½ | 108 |
| Baltimore Traction (N. R.) 5s. | 110 | 110½ | 110½ |
| Central Railway (Balto.) Con. 5s. | 107½ | 107½ | 108½ |
| Central Railway (Balto.) Ext. 5s. | 107½ | 107½ | 108½ |
| Charleston City Railway 5s. | 102½ | 104 | 104 |
| Charleston Con. Electric 5s. | 96 | 97 | 97 |
| Clt. R. L. & P. (Newport News) 5s. | 75 | 82 | 82 |
| City & Suburban 5s. (Balto.) | 105½ | 106½ | 106½ |
| Fairmont & Clarksburg Trac. 5s. | 100 | 100½ | 100½ |
| Knoxville Traction 5s. | 105 | 107½ | 107½ |
| Lake Roland Elevated 5s. | 109½ | 109½ | 109½ |
| Lexington Railway 1st 5s. | 92 | 100 | 100 |
| Maryland Electric Railways 5s. | 99½ | 99½ | 99½ |
| Metropolitan 5s. (Wash.) | 100½ | 100½ | 100½ |
| Newport News & Old Point 5s. | 93½ | 94½ | 94½ |
| Norfolk & Portsmouth Trac. 5s. | 89 | 89½ | 89½ |
| Norfolk Railway & Light 5s. | 100 | 100½ | 100½ |
| Norfolk Street Railway 5s. | 106½ | 106½ | 106½ |
| Norfolk & Atlantic Terminal 5s. | 92½ | 94 | 94 |
| United Railways 1st 4s. | 84½ | 84½ | 84½ |
| United Railways Income 4s. | 61¼ | 61¼ | 61¼ |
| United Railways Funding 5s. | 86½ | 86½ | 86½ |
| Virginia Railway & Power 5s. | 97 | 97½ | 97½ |

| Miscellaneous Bonds. | Par. | Bid. | Asked. |
|-----------------------------------|------|------|--------|
| Ala. Con. Coal & Iron 5s. | 87 | 87½ | 87½ |
| Atlanta Gas 1st 5s. | 102½ | 102½ | 102½ |
| Baltimore Brick 5s. | 100 | 82½ | 82½ |
| Baltimore Electric 5s, Stp. | 95 | 95 | 95 |
| Canton Co. | 117½ | 120 | 120 |
| Consolidated Gas 5s. | 108½ | 108½ | 108½ |
| Consolidated Gas 4½s. | 97½ | 98½ | 98½ |
| Con. Gas, Elec. Lt. & P. 4½s. | 88½ | 88½ | 88½ |
| Con. Gas, Elec. Lt. & P. Notes | 100 | 95 | 95 |
| Consolidation Coal Refdg. 4½s. | 97 | 97½ | 97½ |
| G. B.-S. Brewing 1st 4s. | 5 | 44 | 44 |
| G. B.-S. Brewing Income 5s. | 5 | 7 | 7 |
| Mt. Vernon-Woodby's Cot. Duck 5s. | 74¾ | 75 | 75 |
| United Elec. Lt. & P. 4½s. | 92¾ | 94 | 94 |

BIRMINGHAM BANK MERGER.**American Trust and Savings Bank Will Erect an Eighteen-Story Building.**

The American Trust and Savings Bank of Birmingham has purchased the People's Savings Bank & Trust Co. of that city, and will, it is announced, erect an 18-story building at the corner of First avenue and 20th street, for which plans have been approved. It will be occupied by the bank and as an office building. The merger was closed by President W. W. Crawford of the first and Henry B. Gray of the last named institution. The combined capital of the merged companies will, it is said, be \$500,000 and the surplus \$250,000, with resources of \$5,000,000. About June 1 the bank will move into temporary quarters in the Berney National Bank Building, which is being prepared for its use, and then construction will begin upon the new office building on the present site of the bank.

The principal officers of the American Trust and Savings Bank are G. B. McCormack, chairman of the board; W. W. Crawford, president; H. L. Badham, vice-president; C. M. Williamson, cashier; Edward B. Crawford and W. C. Hamilton, assistant cashiers. Among the directors are J. W. McQueen, vice-president of the Sloss-Sheffield Steel & Iron Co.; J. G. Moore, its general superintendent; M. W. Bush, general superintendent of the Woodward Iron Co.; James Bowron, vice-president of the Southern Iron & Steel Co.; Walter Moore, president of the Eldorado Coal Co.; J. H. Dean, president of the Birmingham Slag Co.; H. E. McCormack, general manager of the Pratt Consolidated Coal Co., and George G. Crawford, president of the Tennessee Coal, Iron & Railroad Co.

American Bank Reporter.

The American Bank Reporter for March, 1911, has been issued. This reliable and valuable publication presents in a comprehensive manner a complete compilation of data, alphabetically arranged, of all banks, bankers, loan, trust and investment companies in the United States and Canada, names of officers, correspondents, charter number of each national bank, as well as capital, loans, deposits, undivided profits and surplus, besides other important information of interest to banks, bankers, attorneys and merchants. The Reporter has been published for 75 years, and is issued twice a year, namely, March and September, with by-monthly supplements, by the Steurer Publishing Co., Nos. 5-7 Beekman street, New York, P. O. Box 411. It is printed upon fine paper, handsomely bound in blue cloth, with silver lettering, and equipped with admirable thumb index, which facilitates the work of all those who consult it. Maps of all States and Territories, Canada, etc., are included in the volume, which also contains a synopsis of banking and commercial laws of the various States and Canada, and special and complete lists of closed national banks, besides foreign banks and bankers, towns without banks, reliable attorneys, lists of all States and Territories, bank officers in the United States and Canada, bank directors, United States consular service, diplomatic service of the United States, bankers' associations, national bank examiners, clearing-houses in United States and Canada, etc.

FINANCIAL CORPORATIONS.

Ala., Childersburg.—The First National Bank of Childersburg is reported being organized; capital \$25,000. Organizers: G. M. Riser, Childersburg; J. A. Hodges, A. H. Smith, B. A. Alford and H. I. Hodges.

Ala., Demopolis.—A national bank capitalized at \$100,000 is reported being organized.

It is understood that A. R. Smith, president of the Demopolis Business League, will be president; John D. Norwood, cashier, and Isidore Bley, vice-president.

Ark., Huttig.—Official: The First National Bank of Huttig chartered; capital \$25,000; F. W. Scott, president, Huttig, and M. W. Hardy, cashier, Eldorado, Ark. Business will begin as soon as charter is granted.

Ark., Nashville.—Official: The Merchants & Farmers' Bank incorporated; authorized capital \$50,000. Business began May 1 with directors thus: J. F. Price, president; J. R. Tinsy, vice-president; C. L. Haller, Col. A. S. Hutchinson, Jas. A. Floyd and A. W. Reese of Nashville; Jno. A. Hughes, Centre Point; D. M. Goodlett, Ozan and W. H. Norwood of Doyle, A. H. Hughes is cashier. The new concern has purchased the business and good-will of the Lesser-Goldman Bank.

Ga., Deveraux.—The Bank of Deveraux is reported chartered; capital \$25,000; incorporators, J. M. Moate, E. R. Fox, J. M. Courson, D. L. Butts, W. A. Bass, T. H. Coleman, C. W. Coleman, Deveraux, and John D. Walker, Sparta.

Ga., Mount Airy.—Reported organized; Bank of Mount Airy; capital \$25,000. Directors: J. O. Norris, president; A. L. Kimsey, vice-president; W. W. Loundermilk, C. Gresham, J. T. Peyton, W. A. McConnell, J. M. Echols, Tilmann Perkins and I. M. Starr. Business is expected to begin about August 1.

Ga., Rome.—The Reynolds Mortgage & Trust Co. has made application for a charter; capital \$25,000; petitioners, Hughes T. Reynolds, Paul H. Doyal and Wilson M. Hardy, all of Floyd county.

Ky., Carrollton.—The Germantown American Bank is reported organized with \$25,000 capital.

La., Vivian.—The Bank of Vivian, capital \$50,000, is reported organized with S. W. Smith president and E. C. Searcy cashier.

Miss., Clarksdale.—The Mercantile Bank, capital \$50,000, is reported organized by R. H. Crutcher, George T. Walton, J. D. Smith and others.

Mo., Kansas City.—Press dispatches state that the Commonwealth National Bank of Kansas City, with \$25,000 capital and \$50,000 surplus, has organized with G. M. Smith, president; L. C. Smith, cashier; E. J. Short, assistant cashier. Directors, Governor Hadley, J. E. Hunt, A. Monroe, president of the Merchants' National Bank in Lawrence; W. L. Lacy, W. H. Avery, J. C. Swift, George E. Ricker, G. M. Smith, Charles Hofer, president of the Bank of Hugginsville, and W. F. Waller.

N. C., Washington.—The Washington Realty & Collection Co., capital \$10,000, is reported incorporated by Mary A. Laughinghouse, Thomas L. Laughinghouse and Howard W. Bowen.

Okla., Addington.—Official: The First National Bank, which is a conversion, is chartered with \$25,000 capital. Business began April 26 with L. A. Wilson, president; M. W. Dimery, vice-president; J. E. Evans, cashier, and J. L. Evans, assistant cashier.

Okla., Boley.—The Boley Loan & Investment Co., capital \$5,000, is reported chartered; directors, L. E. Taylor, B. V. Taylor and E. M. Watson, all of Boley.

Okla., Brame.—Official: The First National Bank of Brame is a conversion of a State bank; capital \$25,000. Incorporators: W. H. Burk of Wellington, Kans.; L. G. Lenker, A. R. Hanna and W. H. Franks of Brame.

Okla., Bromide.—The Bromide State Bank, capital \$10,000, is reported incorporated. Directors, Robert Galbreath, Tulsa; James D. Kivelhen, Edmond, and J. Carl Finch, Oklahoma City.

Okla., Grandfield.—The First National Bank of Grandfield is reported chartered; capital \$25,000; F. M. English, president; O. E. Mapel, vice-president; R. C. Smith, cashier; E. H. Kimmel, assistant cashier.

Okla., Hominy.—Official: The National Bank of Commerce, which is a conversion, is chartered with \$25,000 capital and \$500 surplus. Directors: L. D. Edington, president; Carl Mullendore, cashier; E. C. Mullendore, vice-president; J. C. Lockhart, G. L. Edington and S. A. Bryant.

Okla., Mountain Park.—The Planters' State Bank is reported chartered; capital \$10,000; directors, William G. Capps, J. M. Beesley and F. F. Beesley, all of Frederick.

Okla., Oklahoma City.—The Eagle Loan & Realty Co. is reported chartered; capital \$10,000; incorporators, Guy M. Hilzlm, L. H. Pritchard, John L. Morrison and J. B. Ellison.

Okla., Oklahoma City.—The State Exchange Bank is reported to have begun business;

capital \$100,000; officers, I. B. Levy, president; E. B. Cockrell, vice-president; Harry L. Gerson, vice-president; John G. Long, cashier, and Tom G. Taylor, assistant cashier.

Okla., Paden.—The People's State Bank of Paden is reported incorporated with \$15,000 capital; directors, R. G. Casey, C. C. Bush and R. H. Mansur, all of Prague.

Okla., Paden.—The People's State Bank of Paden is reported organized; capital \$15,000; directors, R. G. Casey, C. C. Bush and R. H. Mansur, all of Prague, Okla.

Okla., Pond Creek.—Official: The Farmers' National Bank is a conversion; capital \$25,000. Directors, O. S. Kelly, E. Grimes, Walter Van Sickle, M. L. Thomas and J. B. Drenner.

Okla., Sentinel.—Official: The First National Bank, which is a conversion of the Citizens' State Bank of Sentinel, is chartered with \$25,000 capital and \$5,000 surplus; directors, Alva J. Niles, president; J. W. McNeal and E. D. Foster, vice-presidents; J. W. Lambright, cashier, and E. M. Niles. Business began April 27.

S. C., Honea Path.—Official: The Honea Path Building & Loan Association has applied for a charter; capital \$50,000. L. A. Brock, president; J. F. Shirley, vice-president. Secretary and treasurer not yet selected. Business is expected to begin soon.

S. C., Johnston.—The Johnston Building & Loan Association is reported chartered; capital \$25,000. J. A. Lott, president; M. T. Turner, vice-president; H. D. Grant, secretary and treasurer.

S. C., Williamston.—The Citizens' Insurance & Brokerage Co. of Williamston is reported to have been granted a commission; capital \$10,000; petitioners, B. B. Gossett, R. E. Tolson, Chris Suher and J. A. Hudgens.

Tenn., Cleveland.—A new bank capitalized at \$100,000 is reported being organized by T. H. Stokes and others. It will probably be known as the People's Bank.

Tenn., Columbia.—The Maury County Trust Co. is reported to have elected officers thus: R. C. Church, president; J. P. Brownlow, cashier and secretary; Charles A. Parker, John W. Fry and W. P. Ridley are the vice-presidents.

S. C., Charleston.—The Security Building and Loan Association is reported to have been granted a commission; capital \$65,000; promoters, W. H. Simpson, J. D. Bell, A. B. Galloway, J. A. Bailey, O. W. Stone and B. L. King.

Tenn., Dyersburg.—The Farmers' Bank is reported chartered; capital \$20,000. Incorporators, W. A. Gaudin, E. C. Garner, L. F. Chalke, W. A. House, J. H. Moore, G. W. Smith, T. M. Herring and L. C. Tomlinson.

Tenn., Nashville.—The Tennessee Mutual Fire Insurance Co. is reported to have begun business.

Tex., Alta Loma.—The First State Bank of Alta Loma is reported chartered; capital \$10,000; incorporators, W. J. Stoner, Clem Schneider, B. F. Cole and others.

Tex., Dallas.—The Mechanics' Trust and Savings Bank is reported to have filed its charter; capital \$50,000; incorporators, W. C. Evans, Joseph S. Myers, Thomas B. Love, William Bartee, G. W. Blakeney and R. O. Hooks.

Tex., Electra.—The First National Bank of Electra, capital \$25,000, is reported being organized by W. W. Brown of Electra, Tex.; J. W. Stringer, J. H. Marriott, R. E. Huff and G. B. Arkell.

Tex., Crosbyton.—Official: The First National Bank, which is a conversion, is chartered with \$50,000 capital and \$250 surplus. Business began May 1 with directors thus: Julian M. Bassett, president; R. M. Bassett, vice-president; Wm. D. Petzel, cashier; Avery Cooley and Edward P. Bailey.

Tex., Gause.—Official: The Guaranty State Bank of Gause chartered; capital \$10,000. Incorporators, Donald Fitzgerald, president; J. T. Falmar, vice-president; C. J. Stanley, W. H. Bailey, W. H. Anderson, J. A. Ely, Roger Killough, J. H. Ireland and J. S. Wray. Business is to begin about June 1.

Tex., Greenville.—The Guaranty State Bank, capital \$50,000, is reported to have begun business with Dr. Will Cantrell president; G. E. Jordan, vice-president; W. A. Williams, cashier; A. M. Moore, assistant cashier.

Tex., Paris.—Official: The Guaranty State Bank & Trust Co. chartered; capital \$50,000. Worth Duncan, president, Paris; J. R. Wilson, vice-president, Atlas, and Sam M. Henderson, cashier, Paris. Open for business May 10.

Tex., Slaton.—The First State Bank of Slaton is reported chartered; capital \$15,000;

incorporators, O. L. Slaton, B. D. Oldham, W. S. Posey and others.

Va., Lynchburg.—The Lynchburg Industrial Loan Co. is reported chartered; capital \$5000; directors, S. W. Patterson, president; John R. Walch, vice-president and treasurer, and W. C. Chick, secretary.

W. Va., Parkersburg.—Official: The Little Kanawha Securities Co. incorporated; capital \$50,000; incorporators, H. O. Hittsaw, T. J. Garrety, G. D. Heaton, W. B. Kinchlea, H. G. Butcher, L. Snodgrass, K. Snodgrass, Burdett Woodyard, F. Maynee and Wm. Smith.

W. Va., Washington.—The Realty & Investment Co., capital \$25,000, is reported incorporated by William E. Fowler and H. C. Donaldson, both of Washington, and V. O. Hill and W. C. Given of Bluefield, W. Va.

NEW SECURITIES.

Ala., Attalla.—Official: T. C. Banks is receiving bids for \$15,000 of 5 per cent. 20-year school-building bonds; denomination \$100. Bonds were voted April 24.

Ala., Oxford, P. O. Anniston.—May 22, it is reported, an election is to be held to vote on \$12,000 of sewerage bonds.

Ala., Cuba.—Official: May 27 an election is to be held to vote on \$10,000 of 5 per cent. 20-year school-building bonds. Leander Poole is Mayor.

Ala., Greenville.—Spitzer, Rorick & Co. of Toledo, O., are reported to have purchased \$15,000 of improvement bonds at par.

Ala., Huntsville.—Official: Voted: \$100,000 of 20-30-year bonds for city hall, public office, hotel and storerooms; denomination \$100. Address R. E. Smith.

Ala., Marion.—June 19, it is reported, an election is to be held in Perry county to vote on \$100,000 of 5 per cent. 20-year good-roads bonds; denomination \$1000.

Ala., New Decatur.—An ordinance is reported passed authorizing the issuing of \$20,000 of public-improvement bonds.

Ala., Tuscaloosa.—Ordinances are reported prepared providing for the issuing of \$3000 of 5 per cent. 10-year improvement bonds in denomination of \$200 each and \$3000 of 8 per cent. improvement bonds, dated May 20, 1911, and payable May 20, 1921; denomination \$200. J. V. Jones is City Clerk and Zimri Shirley Mayor.

Ala., Wetumpka.—The First National Bank of Wetumpka is reported to have been awarded, at \$207 premium, \$70,000 of 5 per cent. 20-year Elmore county road bonds.

Ark., Mariana.—Thos. J. Bolger Co., Chicago, are reported to have been awarded \$100,000 of 5 per cent. 30-year Lee county road-improvement bonds.

Ark., Texarkana.—Official: Bids will be received until 1:30 P. M. May 29 for \$100,000 of 5 per cent. school district high-school building bonds; denomination \$500; dated July 1, 1911; maturity 1913 to 1938.

Ga., Marietta.—Reported voted: \$20,000 of electric-light and \$15,000 of sewerage bonds.

Ark., Mena.—Reported that \$50,000 of 6 per cent. water-works bonds have been purchased by the Wm. R. Compton Bond & Mortgage Co. of St. Louis.

Fla., Fort Pierce.—Press dispatches state that the question of issuing \$80,000 of municipal improvement bonds is under consideration. F. M. Tyler is City Clerk.

Fla., Miami.—June 27, according to press dispatches, an election will be held to vote on \$125,000 of street, sewer, park and dock bonds.

Fla., St. Petersburg.—Reported that on June 13 an election will be held to vote on \$15,000 of water-front improvement bonds, \$5000 of sewer, \$5000 of street-crossing, \$5000 of water-works extension, \$15,000 of Lake Park improvement and \$35,000 of paving bonds; total, \$100,000.

Fla., Tampa.—Official: \$100,000 of 5 per cent. bridge bonds are to be issued; date of opening bids not yet decided. Address Board of Public Works.

Ga., Brunswick.—According to press dispatches, the Mutual Light & Water Co. of Brunswick has been authorized to issue \$225,000 in bonds to retire a like amount and \$125,000 to acquire property of Brunswick Street Car Co.

Ga., Marietta.—Reported that Cobb county proposes to issue \$300,000 of road bonds.

Ga., Thomaston.—A dispatch says that \$50,000 of water and sewer bonds have been voted.

La., Abbeville.—Press dispatches say that a special election is to be held to validate \$35,000 of bonds of Bayou Tigre drainage dis-

trict, previously authorized, to satisfy requirements of a prospective purchaser.

La., Coushatta.—Official: Bids will probably be opened about June 5 for the \$25,000 of 5 per cent. Coushatta school district bonds voted March 30; dated probably June 15, 1911; maturity serially for 25 years, beginning June 15, 1916; denomination \$500. John I. Teer is secretary.

La., New Orleans.—Reported that the \$7,000,000 of 4 per cent. public improvement bonds have been purchased by the Whitney Central National Bank and the Canal Louisiana Bank at 95.37. It is further stated that almost the entire issue has already been disposed of to the Equitable Life Assurance Society, the Mutual Life Insurance Co. and the Metropolitan Life Insurance Co.

Md., Cumberland.—Official: May 16 an election is to be held to vote on \$500,000 of 30-year water improvement bonds. George G. Young is Mayor.

Md., La Plata.—An official letter says that it is proposed to issue \$15,000 of water-works bonds; denomination \$100; date of bond election, rate of interest, maturity, etc., not yet decided. Address Town Commissioners.

Md., Westernport.—Official: Bids will be received until May 23 by John P. Miller, chairman finance committee, for \$500 of 5 per cent. 5-30-year bridge bonds; denomination \$500.

Miss., Aberdeen.—Monroe county is reported to have sold at \$135 premium \$100,000 of 5 per cent. road bonds of Fourth Supervisors' District. The district embraces Aberdeen, Muldon, Prairie and Gibson. Another report says the First National Bank of Aberdeen was the purchaser.

Miss., Amory.—Official: Bids will be received until 8 P. M. June 6 for \$65,000 of 5½ per cent. water-works and sewerage bonds; denomination \$100 and \$500. Address J. A. Mayfield, Mayor.

Miss., Bay St. Louis.—The C. Atkinson's Sons Company of Summit, Miss., is reported to have purchased at \$26.50 the \$25,000 of 6 per cent. 5-20-year Hancock county road and bridge bonds. E. H. Hoffman is clerk Board of Supervisors.

Miss., Corinth.—Official: Bids will be received until July 5 by O. M. Hinton, clerk, for \$10,000 of Alcorn county road bonds.

Miss., Hattiesburg.—Reported that the First National Bank of Commerce has purchased \$40,000 of high-school bonds.

Miss., Mahan.—Official: Bids will be received until May 30 by Geo. W. Cooke, Mayor, for \$10,000 of 6 per cent. school bonds; denomination \$100; dated May 30, 1911; maturity February 1, 1932.

Miss., Newton.—Official: John Nuveen & Co., Chicago, Ill., have been awarded the school bonds recently voted.

Miss., Rolling Fork.—The Bank of Rolling Fork is reported to have been awarded at \$255 premium \$50,000 of 6 per cent. 40-year Sharkey county road bonds.

Miss., Tupelo.—Official: The People's Bank & Trust Co., Tupelo, Miss., purchased at par \$50,000 of 5 per cent. 20-year city improvement bonds.

Mo., Excelsior Springs.—Official: First National Bank of Excelsior Springs has been awarded \$30,000 of 5 per cent. 20-year school bonds at 103; denomination \$1000.

Mo., Independence.—An ordinance is being prepared. It is stated, providing for an election within 30 days to vote on \$40,000 of bridge and culvert construction bonds.

Mo., Lexington.—The Compton Bond & Mortgage Co. is reported to have been awarded \$125,000 of 5½ per cent. road district bonds at par.

Mo., Queen City.—Bonds are reported voted.

Mo., Sarcoxie.—Whitaker & Co., St. Louis, are reported to have recently been awarded at par \$13,800 of 5 per cent. 5-20-year Sarcoxie school district bonds.

Mo., Sedalia.—A. G. Edwards & Co. of New York and St. Louis are reported to have been awarded at par the \$60,000 of 4½ per cent. 20-year Liberty Park improvement bonds.

Mo., Sedalia.—An election is to be held in Pettis county May 16. It is reported, to vote on \$350,000 of road-improvement bonds; interest not exceeding 5 per cent.

N. C., Columbia.—Bids will be received by T. W. Jones, clerk of County Commissioners, until noon June 5 for \$300 of 6 per cent. 1-3-year Tyrrell county bonds.

N. C., Kenansville.—Official: Bids will be received until noon June 5 for \$30,000 of 5 per cent. Duplin county courthouse bonds; denomination \$1000. James J. Bowden is clerk Board of Commissioners.

N. C., Hamlet.—Reported voted: \$5000 of street-improvement bonds. W. E. Davis has been elected Mayor.

N. C., Hickory.—Reported sold: \$30,000 of municipal improvement bonds.

N. C., Laurinburg.—Official: All bids received April 25 for the \$37,500 of 5 per cent. 20-year refunding floating-debt bonds were rejected, and new bids for the same amount with interest at 5½ per cent. will be opened May 11. M. L. John is Mayor.

N. C., Morgantown.—Reported voted: \$35,000 of water-works bonds.

N. C., Murphy.—Cutter, May & Co. of Chicago are reported to have been awarded at par and accrued interest \$50,000 of 5 per cent. 30-year Murphy township road bonds.

N. C., Raleigh.—Official: Bids will be received until noon May 25 by B. R. Laey, State Treasurer, for \$310,000 of 4 per cent. North Carolina State bonds. Denominations \$100 and \$1000. Dated July 1, 1911; maturity July 1, 1951.

N. C., Red Springs.—Dispatches state that Cutter, May & Co. of Chicago have purchased \$35,000 of 5½ per cent. 30-year water-works and sewer bonds. A. B. Pearsall is chairman Board of Public Works.

N. C., Shelby.—C. A. Webb & Co. of Asheville is reported to have purchased \$25,000 of 5 per cent. Cleveland county bridge bonds.

N. C., Tarboro.—B. F. Eagles, Treasurer of Edgecomb county, will, it is reported, receive bids until noon June 1 for \$20,000 of 5 per cent. 10-year courthouse improvement bonds.

N. C., Thomasville.—Reported voted: Water-works and sewerage bonds.

N. C., Wadesboro.—Official: Defeated: \$300,000 of Anson county road-improvement bonds; H. B. Allen, chairman Road Commissioners.

Okla., Blackwell.—Official: Bids will be received until 4 P. M. May 15 for \$75,000 of 5 per cent. 15-25-year school bonds. Address Board of Education, B. W. Jones, clerk.

Okla., Enid.—Reported voted: \$15,000 of bonds to bore for gas and oil, and \$10,000 for park improvements.

Okla., McAlester.—The question of holding an election in Pittsburg county to vote on \$150,000 of courthouse bonds is reported being agitated.

Okla., Muskogee.—Official: Spitzer, Rorick & Co., Toledo, O., were awarded \$175,000 of school bonds at \$307.50 premium; C. J. Eddy is clerk.

Okla., Sentinel.—E. Atkins Sons & Co. of Summit, Miss., are reported to have been awarded the \$12,000 of light and \$3000 of water extension 6 per cent. 25-year bonds.

Okla., Tulsa.—Reported that an election is to be held within next 30 days to vote on \$300,000 of improvement bonds.

Okla., Vian.—Official: Voted: \$20,000 of 6 per cent. water-works bonds; dated April 15, 1911; maturity April 15, 1936. Address G. T. Frances, City Clerk.

Okla., Wetumka.—Reported voted: \$15,000 of school building, \$10,000 of water and light plants and \$5000 of city hall bonds.

S. C., Edgefield.—Official: May 18 election will be held to vote on \$15,000 of 5 per cent. 20-40-year electric-light plant bonds. John G. Edwards is Mayor.

S. C., Greenville.—May 24, it is reported, an election is to be held to vote on \$40,000 of 5 per cent. 20-year school district building bonds.

S. C., Dillon.—Dillon county. It is reported, will issue \$100,000 of road bonds.

S. C., McCormick.—Reported voted: Bonds for school building.

S. C., Prosperity.—Reported voted: \$3000 of school bonds.

S. C., Saluda.—Official: Voted: \$10,000 of 7 per cent. 20-year bonds as bonus for Augusta Northern Railway, now building to Saluda; denomination \$100. Bonds have been sold. Address W. J. Montgomery, Marion, S. C.

Tenn., Arlington.—A \$3000 water plant bond issue is reported under construction.

Tenn., Benton.—Official: Bids will be received until May 20 for \$50,000 of 5 per cent. 3-20-year Polk county road and bridge bonds. Denomination \$1000. Dated April 3, 1911; maturity April 1, 1914 to April 1, 1951. Jas. S. Williamson is chairman County Court.

Tenn., Benton.—Official: Bids will be received until noon May 20 for \$25,000 of Polk county high school 5 per cent. bonds. Maturity \$2000 April 1, 1912, and \$2000 for each succeeding year until 1923, when \$3000 is to come due and be paid. Jas. H. Williamson is chairman County Court.

Tenn., Cleveland.—Dispatches state that \$50,000 of sewer, \$10,000 of water and \$20,000 of floating-debt bonds have been authorized.

Tenn., Humboldt.—Reported that an election will soon be held to vote on \$12,000 of bonds for funding present floating indebtedness.

Tenn., McMinnville.—Reported defeated: \$150,000 of Warren county pike bonds.

Tex., Austin.—The Attorney-General has approved the following securities: \$60,000 of Fort Bend county 5 per cent. 10-40-year bridge bonds; \$24,000 of 5 per cent. 20-40-year Como independent school district bonds; \$6000 of 5 per cent. 20-year bonds of Wilson county common school district No. 9; \$10,000 of 5 per cent. 5-40-year Rock Island independent school district schoolhouse bonds; \$3000 of 5 per cent. 5-40-year Lubbock county common school district No. 11 schoolhouse bonds; \$10,000 of 5 per cent. 5-40-year Rock Island independent school district bonds; \$3000 of 5 per cent. 5-40-year bonds of Dubbock common school district No. 11; \$6000 of 5 per cent. 20-year Wilson county common school district No. 9 bonds.

Tex., Clarksville.—Press dispatches say that the water-works bonds recently voted were for \$10,000.

Tex., Dallas.—Reported voted: \$250,000 of school bonds, and it is stated a meeting will soon be held to determine date of sale.

Tex., Brady.—Press dispatches state that the election, when \$75,000 of road-improvement bonds of Precinct No. 1, McCulloch county, were voted, has been declared irregular, and that another election will be held. The amount, it is said, will be increased to \$100,000.

Tex., Garrison.—Official: Bids will be received until May 20 by D. M. McDuffie, president board of trustees, for \$10,000 of 5 per cent. 20-40-year bonds of Garrison independent school district; denomination \$1000; dated February 1, 1911; C. R. Langston is treasurer Garrison school district.

Tex., Gonzales.—Application is reported to have been made to the County Court asking permission to hold an election to vote on \$150,000 of bonds of Commissioners' Precinct No. 1.

Tex., League City.—Official: Bids will be received until 2 P. M. May 9 for \$15,000 of 5 per cent. 40-year school-building bonds; denomination \$1000; dated December, 1910; maturity December, 1950. Address O. V. King, secretary League City independent school district.

Tex., Llano.—Bids are being received. It is reported, by A. H. Willbern, County Judge, for \$18,000 of the \$25,000 4 per cent. 5-40-year issue of bridge bonds; denomination \$1000.

Tex., Longview.—The question of holding an election in Gregg county to vote on \$200,000 of road-improvement bonds is reported under consideration.

Tex., Melvin.—An election is to be held, it is reported, to vote on \$10,000 of school bonds.

Tex., Kerens.—Reported that \$16,500 of school bonds have been sold.

Tex., Mount Pleasant.—June 2, it is reported, an election is to be held to vote on \$16,000 of sewerage bonds; J. V. Moore is Mayor.

Tex., Nacogdoches.—Reported voted: \$30,000 of 5 per cent. 5-40-year Nacogdoches county courthouse and jail bonds.

Tex., Petty.—Reported voted: \$12,000 of independent school district bonds.

Tex., Quitman.—Reported voted: \$30,000 of Wood county road-improvement bonds.

Tex., San Angelo.—Dispatches state that E. H. Rollins & Sons of Chicago have offered to purchase the \$20,000 of paving bonds at \$434 premium. It is said the bid will be accepted unless the State Board of education wants the bonds at the same price.

Tex., Shafter Lake.—Official: Voted: \$5000 of 5 per cent. 30-year school bonds; denomination \$500. Bids will be opened after May 8. Address School Board.

Tex., Smithville.—Official: Voted: \$3000 of 5 per cent. bridge bonds; denomination \$1000. W. R. Seavy is city treasurer.

Tex., Sterling City.—Reported voted: \$16,000 of Sterling county road bonds and \$10,000 of Sterling City jail bonds.

Tex., Waco.—May 27, it is reported, an election is to be held to vote on \$100,000 of Precinct No. 5 McLennan county road-construction bonds.

Tex., Waco.—Reported that an ordinance is to be prepared providing for an election to vote on \$80,000 of sewer bonds. H. B. Mistrot is Mayor.

Tex., Weatherford.—Reported that \$15,000 of city hall bonds have been sold at a premium of \$222.

Va., Graham.—Official: Bids will be received until 8 P. M. June 1 for \$20,000 of school, \$15,000 of water-works extension and \$15,000 of street and sewer 5 per cent. bonds; denomination \$500; dated July 1, 1911; maturity July 1, 1941. Address V. L. Sexton, Mayor.

Va., Lexington.—Official: Bids will be received by A. P. Wade, clerk of the Mayor and Council, until noon June 1 for \$65,000 of 4 per cent. 30-year water bonds; denominations \$500 and \$1000. Samuel B. Walker is Mayor.

Va., Marion.—Rich Valley District of Smyth county is reported to have voted \$100,000 of road bonds.

Va., Richmond.—Dispatches say that application is to be made to the City Council for an issue of \$1,000,000 of street-improvement bonds.

Va., Lynchburg.—A bill is reported to have been introduced in the City Council providing for \$600,000 of bridge and street-improvement bonds.

Va., Martinsville.—Reported that \$35,000 of 6 per cent. electric-plant bonds have been sold at \$36.25.

W. Va., Romney.—The First National Bank of Romney is reported to have been awarded at 101 the \$15,000 of 5 per cent. 20-year water-works bonds.

W. Va., Roncove.—Reported that \$15,000 of water and sewer bonds are to be voted on.

At Texarkana, Ark., bids will be received until 1.30 P. M. May 29 for \$100,000 of 5 per cent. high-school bonds. Further particulars will be found in the advertising columns.

At Corinth, Miss., bids will be received until July 5 for \$10,000 of Alcorn county road bonds. Further particulars will be found in the advertising columns.

At Kenansville, N. C., bids will be received until noon June 5 for \$30,000 of 5 per cent. Duplin county courthouse construction bonds. Further particulars will be found in the advertising columns.

At Raleigh, N. C., bids will be received until noon May 25 for \$310,000 of 4 per cent. 40-year North Carolina State bonds. Further particulars will be found in the advertising columns.

At Amory, Miss., bids will be received until 8 P. M. June 6 for \$65,000 of 5½ per cent. water-works and sewerage bonds. Further particulars will be found in the advertising columns.

At Garrison, Tex., bids will be received until May 20 for \$10,000 of 5 per cent. 20-40-year Garrison independent school district bonds. Further particulars will be found in the advertising columns.

FINANCIAL NOTES.

The Citizens' Trust Co., Augusta, Ga., is reported to be doing business in its new offices in the Piedmont Bldg.

The Mechanics and Merchants' Bank of Richmond, Va., according to press dispatches, has voted to increase its capital from \$50,000 to \$100,000.

The Harris County Bank & Trust Co., Houston, Tex., is reported to be doing business in its new quarters at 1012 Texas Ave. Frank W. Vaughan is president.

The Citizens' National Bank and the Bowling Green National Bank, both of Bowling Green, Ky., are reported to have consolidated, business to be conducted at the home of the former institution.

A dispatch from Memphis, Tenn., says that the United Casualty & Surety Co., capital \$300,000, has been formed by the merging of the Dixie Casualty & Surety Co. of Memphis and the Commercial Casualty Co. of Nashville. D. A. Fisher of Memphis is president.

A condensed statement of 589 State banks in Texas at close of business March 7, 1911, shows loans and discounts, personal or collateral, \$31,452,431; loans, real estate, \$4,773,579; due from other banks and bankers, subject to check, \$14,277,619; capital stock paid in, \$13,607,500; surplus fund, \$1,824,423; undivided profits, net, \$1,388,016; due to banks and bankers, subject to check, \$1,727,962; individual deposits, subject to check, \$38,824,100; time and demand certificates of deposit, \$2,820,720; total resources, \$61,587,298.

United Public Utilities.

An official telegram from New Orleans says that the United Public Utilities Co., recently incorporated, is simply a reorganization of the Southern Electric Securities Co., and it owns stocks and bonds of the Beaumont Traction Co. of Beaumont, Tex.; the Southern Light & Traction Co. of Natchez, Miss.; the Jennings Electric Light & Power Co. of Jennings, La., and the Vicksburg Railway & Light Co. of Vicksburg, Miss. Lynn H. Dinkins, So. Wexler and others, all of New Orleans, are interested.

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